



Census of Construction Industries

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C82-1-8 **NDUSTRY SERIES**

Water, Sewer, Pipe Line, Communication and Power Line **Construction Contractors**

Industry 1623



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The publications
from the 1982 Economic and
Agriculture Censuses are dedicated
to the memory of Shirley Kallek,
Associate Director for Economic Fields.
During her career at the Bureau of the
Census (1955 to 1983), she continually
directed efforts to improve
the timeliness and accuracy of
economic statistics.

1982

Census of Construction Industries

CC82-1-8

INDUSTRY SERIES

Water, Sewer, Pipe Line, Communication and Power Line Construction Contractors

Industry 1623

Issued October 1984



U.S. Department of Commerce

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This report was prepared in the Construction Statistics Division under the general direction of Leonora M. Gross, Chief. Alan I. Blum, Assistant Division Chief for Industry Surveys, was responsible for the overall management of the census of construction industries. He guided the planning and implementation of the project and coordinated activities with other

A. William Visnansky supervised the preparation of this report. Barbara J. Hadden, Edward R. Glover, Otto G. Ricci, Marie Rustin-Sanhueza, and Shirley M. Baker made important contributions in such areas as developing specifications, procedures, and resolving problems.

The computer processing system was developed and coordinated under the direction of Barbara M. Walter. Richard W. Swartz made significant contributions to the planning and development of the computer programs, and Herbert S. Isham was responsible for the implementation of those programs. The computer programs were also developed and written by John Sibley, Clifford Jordan, Linda M. Mersch, Adele Cerrelli, and Dan G. Sansbury. Mary D. Brady was responsible for most of the data preparation specifications and procedures. Matthew R. Golas was responsible for the coordination with the Computer Services Division. Johnnye Pringle was responsible for production control of the computer processing. Under the direction of Jesse Pollock, Edward K. Ricketts and Dennis K. Duke developed the sampling plans, some computer processing specifications, and quality control procedures.

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ECONOMIC CENSUSES OVER TIME

The early beginnings of America's industrial output were first measured in the United States in the 1810 Decennial Census and again in 1820, when questions on manufacturing were included with those for population. Beginning with the 1840 Decennial Census, there were enumerations of manufactures and mineral industries at 10-year intervals up to and including the year 1900 for manufactures and 1940 for mineral industries. The latter census was taken again for 1954, 1958, 1963, and 1967.

Because of the increasing dominance of manufacturing in the early 20th century, Congress directed that quinquennial censuses of manufactures be taken beginning in 1905. However, from 1919 through 1939, these censuses were conducted every 2 years. The need for war-related current surveys in the early 1940's postponed the next census of manufactures until 1948 (for 1947). That census was again taken for 1954, 1958, 1963, and 1967.

Retail and wholesale trade data were first collected in 1930, and in 1933 information on selected service industries was added to the data-collection operation. These business censuses, as they were called, were again taken for 1935, 1939 (as part of the 1940 decennial program), 1948, 1954, 1958, 1963, and 1967.

Information on construction industries was first obtained in 1930 and again for 1935 and 1939. Data for the full spectrum of construction industries were not gathered again until 1968 (for 1967).

The need for transportation data to supplement information available from existing governmental or private sources was recognized by Congress in the late 1950's and early 1960's. The census of transportation (consisting of several surveys) was first taken for 1963 and again for 1967.

Since 1967, all of the above censuses have been taken quinquennially as part of the Census Bureau's economic census program. (For the 1977 censuses, the coverage of the service

industries was broadened from "selected services" to all services, except religious organizations and private households. A total of 41 additional four-digit standard industrial classifications¹ (SIC's) in 7 SIC major groups was added to the scope of the census. While most of the industries included for the first time for 1977 were covered again for 1982, some were not, i.e., hospitals; elementary and secondary schools; colleges, universities, and professional schools; junior colleges and technical institutes; labor unions and similar labor organizations; and political organizations.)

The first manufacturing census for an outlying area was conducted in Puerto Rico for the year 1909. Thereafter, with the exception of 1929, a census was taken at 10-year intervals through 1949. The first censuses of retail trade, wholesale trade, and selected service industries in Puerto Rico were conducted for 1939. These censuses also were taken for the years 1949, 1954, 1958, 1963, and 1967. A census of construction industries was first introduced in Puerto Rico for 1967. These censuses of Puerto Rico have been taken since then for the years 1972, 1977, and 1982.

Censuses of manufactures, retail trade, wholesale trade, and selected service industries were conducted in Guam and the Virgin Islands of the United States for 1958, 1963, 1967, 1972, 1977, and 1982. Censuses of mineral industries were taken in the Virgin Islands of the United States for the years 1958. 1963, and 1967 but not since that time. A census of construction industries was also undertaken in these areas for 1972, 1977, and 1982.

Retail trade, wholesale trade, selected service industries, manufacturing, and construction industries were canvassed for the first time in the Northern Mariana Islands in 1983 (for 1982).

For 1982, the economic censuses and agriculture censuses were conducted concurrently.

USES OF THE ECONOMIC CENSUSES

The economic censuses are the major source for facts about the structure and functioning of the Nation's economy and provide essential information for government, business, industry, and the general public. They provide an important part of the framework for such composite measures as the gross national product, input-output measures, indexes of industrial production, and indexes measuring productivity and price levels. Information from the censuses is used to establish sampling frames and as benchmarks for current surveys of business activity, which are essential for measuring short-term economic conditions.

Standard Industrial Classification Manual: 1972. For sale by Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Stock No.041-001-00066-6. 1977 Supplement. Stock No. 003-005-00176-0.

State and local governments use census data to assess business activities within their jurisdictions. The private sector uses the data to forecast general economic conditions: analyze sales performance; lay out sales territories; allocate funds for advertising; decide on locations for new plants, warehouses, or stores; and measure potential markets in terms of size, geographic areas, kinds of business, and kinds of products made or sold.

Following every census, thousands of businesses and other users purchase reports. Likewise, census facts are widely disseminated by trade associations, business journals, and newspapers. Volumes containing census statistics are available in most major public and college libraries. All 1982 data are available on microfiche from the U.S. Government Printing Office and most data on computer tape from the Census Bureau. Finally, the more than 50 State Data Centers also are suppliers of economic census statistics.

AUTHORITY AND SCOPE OF THE ECONOMIC **CENSUSES**

The economic censuses are required by law under title 13 of the United States Code, sections 131, 191, and 224, which directs that they be taken at 5-year intervals for the years ending in 2 and 7. The 1982 Economic Censuses covered manufacturing, mining, construction industries, retail trade, wholesale trade, service industries, and selected transportation activities. Special programs also cover minority-owned and women-owned businesses. The next economic censuses are scheduled to be taken in 1988 for the year 1987.

METHOD OF ACCOUNTING AND TIME COVERED

For the census report, respondents could use any system of accounting by which they maintained their books. Therefore, reports could be based on cash, accrual, or completion of contract methods of accounting.

A report was supposed to cover the calendar year 1982. If that involved considerable costs, fiscal year reporting was permitted if it did not produce great differences. However, all payroll and employment figures had to be reported for the calendar year.

CENSUS OF CONSTRUCTION INDUSTRIES— SCOPE AND CLASSIFICATION

The 1982 Census of Construction Industries covers all employer establishments (establishments with payroll) primarily engaged in contract construction, construction on their own account for sale, or in subdividing real property into lots as defined in the 1972 Standard Industrial Classification (SIC) Manual. This industrial classification system has been developed by experts on classification in government and private industry under the guidance of the Office of Management and Budget and is in general use among government agencies and among organizations outside the government.

Contract construction - The SIC manual defines construction in three broad types of activity: (1) building construction by general contractors, (2) other construction by general contractors, and (3) construction by special trade contractors.

- 1. Building construction by general contractors-General building contractors are primarily engaged in the construction of dwellings, office buildings, stores, farm buildings, and other projects of a similar character.
- 2. Other construction by general contractors + Often referred to as heavy construction contractors, these contractors are primarily engaged in the construction of highways, streets, bridges, and tunnels; docks and piers; dams and water projects; sewage collection, treatment, and disposal facilities; storm sewer systems; air fields; and other heavy construction which involves either earth moving or the erection of structures and appurtenances, other than buildings.
- 3. Construction by special trade contractors Special trade contractors are primarily engaged in specialized construction activities such as plumbing, painting, electrical work, carpentry, etc.

General contractors in both the building and the heavy construction field usually assume responsibility for an entire construction project, but may subcontract to others those portions of the project requiring special skills or equipment. Special trade contractors may work for general contractors, for other subcontractors, or may work directly for the owner of the property.

Construction on their own account, for sale-Operative builders are primarily engaged in constructing buildings or other structures on their own account, acting as their own general contractor. These structures are generally sold when completed. Investment builders, primarily engaged in construction on their own account for rent or lease, were not included within the scope of the construction census.

Subdividers and developers, except cemeteries-The SIC manual defines subdividers and developers, except cemeteries, as establishments engaged in subdividing real property into lots, except cemetery lots, and in developing it for resale on their own account or for others.

In this system, each establishment is assigned an industry code on the basis of its major activity.

Each establishment receiving a questionnaire was requested to report the percent of total business receipts for each kind-ofbusiness activity engaged in during 1982. This information was used for the computer assignment of appropriate industry classifications. During this work, various tests were also made using other data reported on the questionnaire. The proportion of construction receipts to total business receipts was checked to verify that the establishment was primarily in construction. Also taken into consideration were the types of structures worked on during the year and the extent of work undertaken for other contractors.

Construction establishments often engage in various construction activities, but in only a few instances do the SIC industry categories take into consideration combinations of activities. An example is SIC 1711, which includes establishments primarily engaged in plumbing, heating, air conditioning, ventilation, and refrigeration work. It is necessary, however, to assign a single industry code to the establishment based on its major activity.

^{&#}x27;Standard Industrial Classification Manual: 1972. For sale by Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Stock No. 041-001-00066-6. 1977 Supplement. Stock No. 003-005-00176-0.

Therefore, the statistics shown for an industry reflect not only the primary activity of the establishments in the industry, but also their secondary activities.

The structure of the Standard Industrial Classification System makes it possible to classify or tabulate establishments by major group (two-digit), industry group (three-digit), or industry (four-digit) according to the degree of detail available and needed.

ESTABLISHMENT BASIS OF REPORTING

The census of construction industries is conducted on an establishment basis. A "construction establishment" is defined as a relatively permanent office or other place of business which has been established for the management of more than a single project or job and is expected to be maintained on a continuing basis. Such "establishment" activities include, but are not limited to, estimating, bidding, scheduling, purchasing, supervising, and operating the actual construction work being conducted at one or more construction sites.

Exceptions to the "relatively permanent office" rule were that: (1) in case of joint ventures, a separate establishment report was required covering the joint venture entity even though established to undertake only a single project; and (2) to the extent that separate legal entities were set up to carry out only a given project or part of a project, then a separate establishment report was also required for each legal entity.

To the extent that several companies shared or operated out of a single office or place of business, each such legal entity engaged in construction was considered a separate establishment and each was requested to file the necessary "establishment" report covering the activities it conducted in or from that common office.

Companies with more than one construction establishment were required to submit a separate report for each such establishment operated during all or any part of 1982.

Separate construction reports were not required for each project or construction site. Aggregated information was included in the report of the construction establishment responsible for the work of the construction projects and sites.

If an establishment engaged in two or more distinctly different lines of economic activity (wholesale or retail trade, service, manufacturing, construction, mining, etc.) at the same place of business, it was requested to file a separate report appropriate to each activity, provided that the activity was of substantial size and separate records were maintained or substantially accurate etimates could be prepared.

If a separate establishment report could not be prepared for each activity, then a construction report was requested covering all activities of that establishment providing that the 1982 gross receipts from construction activities exceeded the gross receipts from each of its other activities.

An establishment is not necessarily identical with a "company" or "enterprise," which may consist of one or more establishments. The census of construction industries figures represent a summary of records for individual establishments rather than for companies. The census tabulations, therefore, differ from those prepared on a company basis.

Construction businesses with no payroll during 1982 (nonemployers) were not required to file census reports. Collection and tabulation of data for these businesses are described in the section on "Sample Design." Foreign construction activities were not included in this census.

SAMPLE DESIGN, ESTIMATION PROCEDURES, AND RELIABILITY OF ESTIMATES

The firms included in the 1982 Census of Construction Industries were identified as part of an operation common to all 1982 Economic Censuses. Construction firms were divided into employers (firms with payroll) and nonemployers (firms without payroll). Statistical information for the employers was obtained in the census by a survey which included all medium size and large employers and a sample of the smaller ones. Census reports were not required from the nonemployers. Statistics on them were obtained from administrative records of other agencies of the Federal Government based on information supplied directly to the agencies.

Employer Firms

Developing the sampling frame for employer firms-This operation started with obtaining a list of all construction firms in the active records of the Internal Revenue Service (IRS) which were subject to payment of Federal Insurance Contributions Act taxes. The basic source for this list has been the Internal Revenue Service Business Master File, a comprehensive list of firms engaged in business activities in the United States. The file contains the name, address, and form of ownerhship of each firm and also indicates whether or not the firm is subject to the Federal Insurance Contributions Act. Each firm in this file is assigned a unique employer identification (EI) number which it uses in filing its various reports with the IRS. The Social Security Administration (SSA) maintains a similar list using the same identification numbers, which also contains information on the industrial classification of each firm. The Bureau of the Census obtained both of these lists and combined them.

Under special arrangements which safeguarded the confidentiality of the information, the Bureau also obtained administrativerecord data on payrolls and receipts and added these data to the combined list. The list, thus created from the IRS-SSA information, was a list of employer firms. However, for the 1982 Economic Censuses the basic reporting unit is the "establishment." Therefore, steps were taken to identify the individual establishments of those firms which operate more than one place of business. The information for making this determination was obtained by means of the Company Organization Survey (COS), an annual canvass of all known multiestablishment firms and large single-establishment firms. Thus, the 1982 Economic Census list for single-establishment employer firms was obtained from the IRS-SSA, but the list of establishments of multiestablishment employer companies was obtained directly from those companies in the COS.

In general, the IRS-SSA list provided sufficient industrial classification data to assign a firm to the proper economic census, but there were a number of firms for which this information was inadequate or unavailable. A special form, NC-9923, General Report, was mailed to all such firms, requesting information on the nature of the firm's activities. From the information reported, the firm was given an industrial classification code and assigned to the appropriate economic census. Since construction firms found in this way were identified as such, only after the regular census mailing had taken place, they were treated as a supplement to the basic list.

For 1982, some data will be published for Standard Consolidated Statistical Areas (SCSA's) and selected Standard Metropolitan Statistical Areas (SMSA's). Therefore, each establishment was assigned to an SMSA code or to the balance of a State. The balance of the State was considered to be a separate cell for the selection process. In States where none of the SMSA's had more than 500,000 inhabitants in the 1970 Decennial Census, all establishments were assigned to the balance of the State.

Selecting the employer sample - A construction universe of about 464,000 single establishment employer firms and 6,500 multiestablishment employers, accounting for another 13,000 construction establishments, was developed by the procedures described above. From this universe, a sample of 172,000 employer establishments was selected. This sample was generally organized by standard industrial classification (SIC) in State sequence. The sample was designed to provide publishable estimates for the most construction industries at the State and selected SMSA level. It consisted of all construction establishments in multiestabishment companies, all singleestablishment companies with the payroll equivalent of 20 employees or more, and a sample of single-establishment companies with less than 20 employees. There were three SIC's for which this standard plan was not used: SIC 1622, Bridge, Tunnel, and Elevated Highway Construction Contractors; SIC 1795, Wrecking and Demolition Work Special Trade Contractors; and SIC 1796, Installation or Erection of Building Equipment Special Trade Contractors.

The number of establishments classified in each of these three industries is very small and consequently, all single-unit establishments in these three industries were included in the sample. For sampling purposes, the number of employees was estimated from the 1981 payroll data in the administrative records, using an industry average wage per employee. The sampling was accomplished using a systematic method within each four-digit SIC. If the SIC code for an establishment was not complete, it was sampled as part of a two-digit group (e.g., 1520 was sampled as 1500, 1620 as part of 1600) except for non-classifiable cases in two-digit group 17. These were sampled as part of 1799 which is Special Trade Contractors, Not Elsewhere Classified. For the establishments with less than 20 employees, the sample was selected by sorting the establishments into State by SMSA by SIC by payroll sequences, and drawing a systematic sample of at least two establishments within each cell, with the probability of selection being proportional to the 1981 payroll. If the State-SMSA-SIC cell had two or less establishments in the frame, all establishments were selected (a 100-percent sample). A 100-percent sample was taken of the construction firms identified from the NC-9923. General Report, and of the transfers from other census trade areas. These latter cases were identified during the processing stages. These were caused either by changes of activity in the firm since the last updating of the classification file, or errors in the mailout classification. These cases were all added to the construction census, with certainty.

Estimation procedures for 1982 and 1977 data—Since all larger employer firms and some smaller ones were included in the census, sample estimation was required only for the universe of firms not selected with certainty. The published statistics are the totals of the estimates for the sampled firms and the

aggregates for the certainty (larger) firms. All estimates for 1982 and 1977 published here are simple unbiased estimates of the form:

$$x'_{c} = \sum_{i=1}^{n_{c}} x_{i}/p_{i}$$

where: x'c is the simple unbiased estimate of a characteristic for a publication cell.

 is the reported value of a characteristic for an individual establishment in the publication cell.

p; is the selection probability of that firm.

n c is the number of firms in the sample for the cell.

This method of estimation was used for all 1982 and 1977 characteristics. Before this formula was applied, it was necessary to convert into dollars those distributions of construction receipts which had been reported by the establishments as percentages—construction receipts by type of project, location of project, etc.

Reliability of employer statistics—Since the estimates for employer establishments in these reports are based on the samples, they are subject to sampling variability and may be expected to differ from results which would have been obtained if a complete census had been taken using the same forms and procedures. The sampling errors shown in the tables were estimates directly from the sample reports, using methods appropriate for the sample design and form of estimation used.

The relative standard error is a measure of sampling variability, i.e., the variation that might occur by chance because only a sample of the population is surveyed. As calculated for this report, the relative standard error also partially reflects the effect of random errors of response and processing, but it does not take into account the effect of any consistent biases due to those types of errors. The chances are about 68 out of 100 that an estimate from the sample would differ from a complete census by less than the relative standard error. The chances are about 95 out of 100 that the difference is less than twice the relative standard error and about 99 out of 100 that it is less than 2-1/2 times the relative standard error. Individual estimates with large relative standard errors have been shown in the published tables. Any such estimates should be used with caution. The very large relative standard errors generally occur for the smaller estimates.

Although relative standard errors have been calculated for all of the published statistics, they are shown for each statistic only in the tables presenting detailed statistics. The other tables show relative standard errors only for some characteristics because of lack of space.

Separate measures of reporting and processing errors are not available. However, estimates which were subject to large errors of these types are likely to have been detected and corrected, or withheld from publication in the process of the review of the data for reasonableness and consistency. Other specific qualifications of the published data are indicated in footnotes to the tables.

The statistics in this report were based on data received by the time of final publication. Data were imputed for establishments that did not report by that date. Selected establishments were contacted again to obtain as much information on the telephone as possible. Late data received in early 1984 were substituted for imputed data when the difference between the two was significant. Some publication cells in which more than 50 percent of the data were imputed have been suppressed.

Nonemployer Firms

General - As described earlier, the information derived from the business income tax returns of all firms was matched to the census employer file on the basis of common identification numbers. Those business income tax returns which could not be matched, were further classified on the basis of several characteristics. Returns with characteristics consistent with firms without payroll were treated as nonemployers. The nonemployer construction firms were not required to file census reports.

For "number of establishments," each separate income tax return was assumed to be an establishment. "All business receipts" was based on receipts information reported on the tax return. In 1982, this group accounted for 60 percent of the total number of construction establishments, but accounted for only 8 percent of all business receipts of all construction establishments.

Qualifications to the nonemployer data-Since no sampling was involved in the nonemployer establishments, the statistics for nonemployers are not subject to sampling variability. However, these data are subject to an unknown amount of reporting and processing errors which could not be detected by the Census Bureau.

CENSUS REPORT FORMS

Information for the 1982 Census of Construction Industries was obtained from employer establishments primarily through the use of eight questionnaires, determined by industry classification and size. Standard forms and short forms were developed for each of the three two-digit SIC groups (15, 16, and 17), and for the establishments classified in SIC 6552. Establishments with 50 or more employees all received the standard form. A sub-sample of establishments with fewer than 50 employees received short forms instead of the standard forms. The short forms covered only major items and omitted most of the detail found in the longer forms.

In reviewing and developing the questionnaires, comments and recommendations were solicited from construction trade associations and appropriate advisory groups. The Census Bureau surveyed several thousand firms representing all economic activities to gain insight into the way companies maintain records and to see whether new information could be collected.

DATA PROCESSING

The 1982 census report forms were mailed out in December 1982. Collection of these report forms, also by mail, was essentially completed in July 1983. They were mailed from and

returned to the Census Bureau's Data Preparation Division in Jeffersonville, Ind., where routine editing and coding of the report forms were also accomplished.

The returned reports underwent extensive processing. A preliminary edit done at the time of data entry identified obviously deficient reports and reports needing clarification. When necessary, these problems were resolved by further contact with the respondents. Next, the data were transmitted to Census Bureau headquarters in Washington, D.C.

Data records, then, underwent a detailed computer review and analysis. The records containing significant problems were referred for further analytical review and, if necessary, contacts were made with the respondents. The computer performed most classification coding (such as industry coding, geographic coding, and size coding) and imputation for missing items or for the small number of reports not received in time for tabulation. The imputation was performed on an industry (or industry group)-State (or geographic group) basis using all available response and administrative data.

The data records were then tabulated on an industry basis. Industry totals were subjected to analytical review, and selected statistics were prepared for the preliminary reports. Corrections resulting from this review were made to the computer records and final tabulations were produced.

The review of a preliminary report for an industry often uncovered the need for corrections or revisions to the data for another industry for which a preliminary report had already been published. The final reports incorporate all revisions and corrections made during the review of the preliminary reports and contain considerable more data than were published in those reports.

GEOGRAPHIC CLASSIFICATION

Information for the 1982 Census of Construction Industries' final industry report series is classified on the basis of two types of geographic distributions: (1) physical location of the establishment, and (2) location of construction work. Separate State codes were assigned based on this information.

The geographic area reports series presents similar data by industry for each State (physical location of the establishment) and for selected SCSA's and SMSA's.

DUPLICATION IN RECEIPTS

The aggregate of construction receipts reported by all construction establishments in each of the several industry, geographic area, or other groupings in this census, contains varying amounts of duplication, since the construction work (and the receipts) of one firm may be subcontracted to other construction firms and also be included in the subcontractors' receipts. To avoid this duplication, a "net construction receipts" figure has been derived for each establishment by subtracting the payments made for construction work subcontracted to others from the total construction receipts.

Duplication in receipts between other construction and nonconstruction industries results from the use of products of these other industries as input materials by construction establishments. "Value added," avoids this duplication and is, for most purposes, the best measure for comparing the relative economic importance of industries or areas. "Value added," is

defined in the 1982 Census of Construction Industries as equal to all business receipts less payments for construction work subcontracted to others and payments for materials, components, supplies, and fuels. However, for SIC 6552 and SIC 1531 where land receipts are significant, value added is defined as equal to all business receipts less land receipts, payments for construction work subcontracted to others, and payments for materials, components, supplies, and fuels.

SPECIAL TABULATIONS

Special tabulations of data collected in the 1982 Census of Construction Industries may be obtained on computer tape or in tabular form. The data will be in summary form and subject to the same rules prohibiting disclosure of confidential information (including name, address, kind of business, or other data for individual business establishments or companies), as are the regular publications.

Special tabulations are prepared on a cost basis. A request for a cost estimate, as well as exact and detailed specifications of the type and format of the data to be provided, should be directed to the Chief, Construction Statistics Division, Bureau of the Census, Washington, D.C., 20233.

To discuss a special tabulation before submitting specifications, call 301-763-5435.

RELATIONSHIPS OF THE ECONOMIC CENSUSES TO **CURRENT SURVEYS**

The Census Bureau also conducts current surveys (monthly, quarterly, and annually) to keep abreast of the rapid changes in business conditions, new processes, new materials, and shifting demands of goods and services. The census universe provides the sampling frame, weights, and benchmarks on which some of these current surveys are based. The accuracy of the measures derived from these current surveys is directly related to the completeness of information provided in the censuses.

COMPARABILITY OF CENSUS OF CONSTRUCTION INDUSTRIES DATA WITH OTHER DATA

Data contained in the reports of the 1982 Census of Construction Industries are not the same as the data published in the Census Bureau's monthly Construction Reports, Series C30, Value of New Construction Put in Place. The main difference is that the C30 series covers all new construction put in place without regard to who is performing the construction activity, whereas, the construction census figures cover both new construction and

maintenance and repair work, but only for establishments classified in the construction industry. Force account construction activity-construction work performed by the labor force of a nonconstruction company for itself, or by other entities (Federal, State, or local governments) for themselves, or by property owners for themselves - probably accounts for more than half of the difference in the data of the two series of reports. Other factors contributing to the difference are that the census data do not include: (1) the value of materials supplied by the owners of projects, (2) the value of separate architectural and engineering services and, to a lesser extent, (3) the value of construction work performed for others by firms outside the scope of construction (manufacturers who install, lumber yards and other businesses, etc.).

Data contained in the reports of the census of construction industries may also differ from industry data in "Employment and Earnings Statistics," published by the Bureau of Labor Statistics, and "Statistics of Income," published by the Internal Revenue Service. These differences arise from varying definitions of scope, coverage, timing, classification, and methodology. Their effect is not fully known.

ABBREVIATIONS AND SYMBOLS

The following abbreviations and symbols are used in this publication:

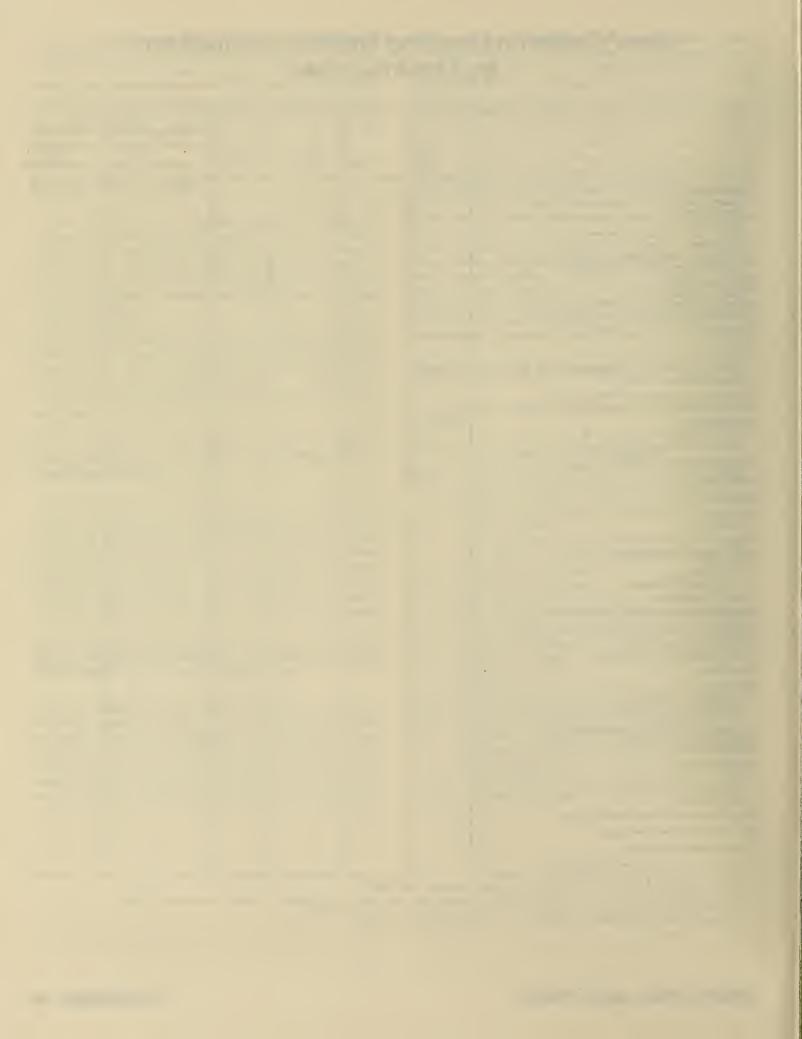
- Sampling error exceeds 40 percent.
- All employees (average) is the sum of construction workers during pay period including 12th of March, May, August, and November divided by 4, added to all others, March 12th.
- Represents zero.
- Represents total construction receipts less payments for construction work subcontracted to others. (See Duplication in Receipts.)
- Represents all business receipts less payments for construction work subcontracted to others, and payments for materials, components, supplies, and fuels. In SIC's 1531 and 6552, land receipts are also subtracted from "all business receipts." (See Duplication in Receipts.)
- Possible duplication in data. (See Duplication in Receipts.)
- Withheld to avoid disclosing data for individual com-(D) panies; data are included in higher level totals.
- (NA) Not available.
- Withheld because estimate did not meet publication standards on the basis of either the response rate, associated standard error, or a consistency review.
- Greater than zero but less than 1 percent.
- n.s.k. Not specified by kind.

Users' Guide for Locating Statistics in This Report by Table Number

Statistics	For U.S.	By State	By employ- ment size	By receipts size	By type, class, ownership, kind of business, and location of construction ¹	By specialization in types of construction
Assets and depreciation (gross book value): Beginning of year—structures, machinery and equipment End of year—total End of year—structures, machinery and equipment Depreciation charges during the year— structures, machinery and equipment	3 1, 3 3 3	1	5	6		
Capital expenditures: Total capital expenditures New structures—machinery and equipment Used structures—machinery and equipment	1, 3 3 3	1	5	6		
Communication services, payments for	2					
Employees: All employees—average number	1, 2 1, 2, 9 2	1	5	6		8
Employer costs for fringe benefits—legally required and voluntary expenditures	2					
Establishments: Number in business at end of year	2 1, 2, 4, 9	1, 9	5	6		8
Hours—construction workers: Total	1, 2, 9 2, 9	1, 9	5	6		
Inventories	4					
Materials, components, supplies, and fuels— payments for	1, 2	1	5	6		
Payroll: First quarter, all employees	2 1, 2	1	5	6		8
Construction workers Other employees	1, 2					
Power, fuels, and lubricants—payments for	2					
Profile of the industry—selected industry averages	12					
Proprietors and working partners	2					
Ratios, State	13	13				
Receipts: All business receipts Construction receipts, total For work subcontracted in from others Other business receipts and lead a table 2	1, 2, 4 2	1	5 5	6 6	11 2, 7, 10	8
Other business receipts and land receipts ² Net construction receipts	1, 2 1, 2	1	5 5	6		8
Rental payments: Total		1	5	6		
Repairs to structures and related facilities	1					
Repairs to machinery and equipment						
Storage capacity for fuels ³	2					
Subcontract work to others, payments for	1, 2	1	5	6		8

Note: Data for 1977 and earlier years are also available in some of these tables.

¹Type—buildings, roads, etc. Class—new construction or maintenance and repair work. Ownership—private or government owned.
²Other business receipts and land receipts are shown separately for SIC's 1531 and 6552 only.
³Storage capacity for fuels shown only for SIC's 1611, 1622, 1623, and 1629.

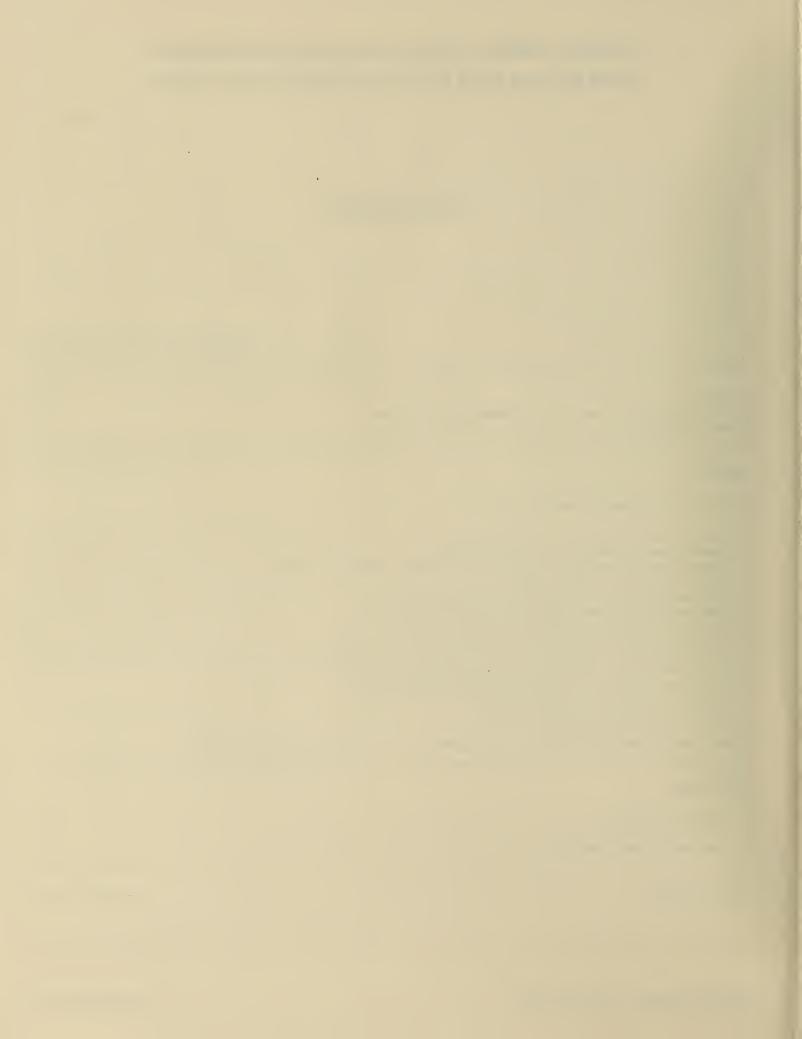


Water, Sewer, Pipe Line, Communication and Power Line Construction Contractors

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SUMMARY OF FINDINGS

Establishments classified in this industry are primarily engaged in the construction of pipe lines, communication and power lines, and sewer and water mains. It also includes construction of pumping stations, television and radio towers, and telephone line construction. For specific examples, refer to the 1972 Standard Industrial Classification (SIC) Manual and its 1977 supplement.1

During 1982, there were 9,413 establishments with payroll classified in this industry.2 All business receipts of these establishments amounted to \$12.1 billion, of which \$12.0 billion were receipts for construction work. Their payments for construction work subcontracted to others amounted to \$1.5 billion, leaving net construction receipts of about \$10.5 billion. Value added for 1982 was \$7.0 billion. (See Introduction and appendixes for explanation of terms.)

The establishments in this industry made payments of \$3.2 billion for materials, components, and supplies purchased for use in construction work for others, purchased and subsequently provided to subcontractors for their use, purchased and then resold to others, and purchased and used in construction work for their own account. However, materials furnished to contractors by owners of projects are, of course, not included. Payments of \$443.3 million were also made for selected power, fuels, and

lubricants purchased during the year from other companies or received from other establishments of the parent company.

Establishments with 10 employees or more, while representing only 42 percent of the total number of employer establishments in this industry, accounted for 90 percent of all business receints.

Total average employment in the industry showed a decrease of 6 percent from 1977 to a total of 186.7 thousand employees. Total payroll for 1982 amounted to \$3.6 billion. Hours worked by construction workers during the first quarter of 1982 were 62.3 million hours, while hours worked during the third quarter were 83.1 million hours.

Payments of \$634.0 million for employer costs for fringe benefits (not included in payroll) represent expenditures during the year for legally required and voluntary fringe benefit programs for employees-such as employers' Social Security contributions, unemployment compensation, pension plans, and welfare plans.

The 1982 estimates for establishments with payroll in all of the construction industries are based on a probability sample consisting of about 172,000 construction establishments. The estimates for this particular industry are based on a sample of about 5,500 establishments.

The statistics reported by each establishment cover all of its activities, not just construction. Therefore, aggregates of such data for an industry reflect not only the primary construction activities of the establishments in the industry, but also their secondary construction activities and any nonconstruction activities.

All data shown are based on current dollars for the years specified and have not been adjusted for price changes or inflation between 1977 and 1982.

Standard Industrial Classification Manual: 1972. For sale by Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Stock No. 041-001-00066-6. 1977 Supplement. Stock No. 003-005-00176-0.

²Limited data for establishments in this industry without payroll (nonemployers) will be included in the U.S. industry summary report to be published after the individual industry reports have been issued.

Table 1. General Statistics for Establishments With Payroll by State: 1982 and 1977

	1982											
		Emplo	yees**	Pay	yroll							
Location of establishment	Number of establishments	All	Construction workers	All employees	Construction workers	Construction worker hours (thousands)	Total construction receipts	Net construction receipts†				
	А	В	С	D	E	F	G	Н				
United States	9 413	186 674	160 473	3 576 338	2 906 789	2 9 4 04 8	11 952 831	10 462 441				
Alabama	125	3 147	2 780	43 736	35 257	4 883	145 801	124 780				
	34	1 546	1 222	43 110	32 769	1 375	154 356	137 460				
	116	1 745	1 464	33 306	25 726	2 560	127 587	111 118				
	150	1 791	1 606	25 367	21 459	3 044	86 331	77 968				
	875	15 421	13 165	354 280	291 303	21 503	1 332 858	1 164 382				
Colorado Connecticut	204	4 351	3 741	76 873	63 454	6 439	247 420	224 411				
	105	1 238	1 046	23 663	18 561	1 890	72 833	64 694				
	16	645	581	11 397	9 501	1 283	33 545	31 201				
	1	(D)	(D)	(D)	(D)	(D)	(D)	(D)				
	446	10 694	9 194	164 377	130 105	18 010	619 184	515 465				
Georgia	288	7 823	6 862	116 387	95 728	12 907	378 293	330 073				
Hawaii	21	464	378	9 055	7 061	439	36 289	30 312				
Idaho	54	925	785	17 973	14 881	1 395	44 487	40 890				
Illinois	327	6 659	5 745	169 537	142 825	10 522	454 565	399 883				
Indiana	157	2 958	2 497	58 412	42 720	4 093	175 035	158 342				
lowaKansas Kentucky	170	1 568	1 307	29 397	23 008	2 359	104 349	89 395				
	177	2 301	2 018	43 991	36 473	3 698	151 009	134 328				
	136	2 018	1 735	31 695	26 003	3 152	105 158	94 566				
	231	7 626	6 384	160 574	126 997	12 340	516 145	469 064				
	34	873	782	18 882	15 883	1 585	75 847	(D)				
Maryland	135	2 978	2 560	51 126	39 493	4 834	154 136	136 012				
	174	2 880	2 386	51 937	40 699	4 196	193 708	171 475				
	309	3 711	3 001	81 618	62 221	5 609	294 138	239 436				
	217	3 017	2 580	70 652	59 783	4 479	256 502	211 418				
	72	3 009	2 689	40 306	34 758	5 482	111 097	102 457				
Missouri	189	3 485	2 995	71 361	59 416	5 120	229 767	198 873				
	69	756	601	14 547	12 252	1 046	54 147	46 344				
	112	989	869	19 161	16 214	1 629	80 558	74 245				
	36	539	437	13 568	10 009	756	55 610	48 448				
	32	369	326	5 390	4 448	564	15 914	14 533				
New Jersey	219	4 731	3 999	124 126	100 632	7 594	418 337	375 400				
	62	2 315	2 034	40 415	33 281	3 929	120 830	111 603				
	426	6 723	5 554	146 802	115 161	9 565	563 262	499 245				
	288	7 104	6 230	102 375	79 921	12 005	358 661	277 434				
	56	440	361	8 375	6 589	632	34 327	31 129				
Ohio_ Oklahoma Oregon Pennsylvania Rhode Island	323	6 646	5 683	134 444	111 019	9 798	384 650	331 590				
	266	5 639	4 870	96 010	82 017	8 153	272 918	245 023				
	141	2 140	1 941	45 275	39 301	3 257	147 553	133 619				
	290	9 373	7 947	193 256	161 532	14 724	572 710	508 939				
	21	(D)	(D)	(D)	(D)	(D)	(D)	(D)				
South Carolina South Dakota Tennessee Texas Utah	106	2 524	2 261	33 787	26 652	4 816	118 086	105 791				
	52	404	330	6 229	4 558	596	25 774	23 790				
	172	3 444	2 935	47 893	37 381	5 702	191 511	161 572				
	1 041	23 740	20 963	449 410	368 416	41 873	1 467 597	1 301 995				
	92	989	848	17 873	14 920	1 578	74 537	66 693				
Vermont Virginia Washington West Virginia Wisconsin Wyoming	24	356	292	5 374	4 442	585	19 296	16 816				
	226	5 599	4 956	84 333	70 240	9 446	257 999	227 551				
	232	3 150	2 519	69 784	52 846	3 965	228 019	193 128				
	115	2 092	1 838	39 320	33 262	3 007	100 843	94 030				
	195	2 581	2 190	55 939	46 513	3 756	200 115	177 472				
	44	864	751	17 766	14 863	1 485	63 556	56 553				

		1982-	-Con.				1977					
Value added††	Payments for materials, components, supplies, and fuels	Payments for construction work sub- contracted to others	Rental payments for machinery, equipment, and structures	Capital expenditures, other than land	End-of-year gross book value of depreciable assets	All employees**	Total construction Valu receipts added†		error (pe	ve star of estin rcent) olumn-	mate for	Location of establish- ment
1	J	К	L	М	N	0	Р	Q	В	Н	М	
7 005 322	3 633 243	1 490 389	458 027	469 328	4 702 601	198 354	9 361 092	5 522 719	(W)	(W)	(W)	U.S
74 374	52 118	21 021	5 513	6 013	55 026	4 384	138 954	76 067	4	5	5	Ala.
80 019	59 493	16 896	7 081	4 347	51 860	4 080	334 446	218 155	2	2	4	Alaska
64 390	48 306	16 469	5 658	3 677	47 738	1 551	98 399	37 907	4	4	1	Ariz.
51 796	27 227	8 363	2 900	2 803	37 236	1 617	52 356	27 852	7	6	7	Ark.
791 178	389 500	168 475	57 603	31 487	363 506	17 054	1 269 980	779 165	1	1	1	Calif.
153 118	73 763	23 008	12 765	12 008	96 705	2 834	142 725	80 427	2	3	4	Colo.
42 568	22 478	8 139	2 977	3 095	37 964	2 241	95 318	52 094	7	5	7	Conn.
22 827	(D)	2 344	692	3 177	22 847	706	27 924	18 961	5	6	6	Del.
(D)	(D)	(D)	(D)	(D)	(D)	341	20 707	11 032	-	-	-	D.C.
321 207	200 253	103 719	23 343	23 180	206 121	7 510	292 698	155 791	1	2	3	Fla.
194 825	141 880	48 220	7 022	21 343	156 500	4 984	157 601	92 024	2	2	4	Ga.
20 886	9 733	5 977	1 149	1 102	18 830	492	28 961	16 883	3	7	4	Hawaii
22 577	18 423	3 597	*1 661	965	19 668	780	37 720	19 930	6	8	26	Idaho
274 470	129 082	54 682	14 170	9 513	196 649	8 787	485 521	259 254	1	1	2	III.
106 651	56 164	16 692	4 363	8 488	88 803	3 724	159 447	98 094	3	2	3	Ind.
49 494	40 840	14 954	4 545	5 661	67 209	1 903	92 421	50 589	6	4	4	lowa
77 523	57 454	16 681	3 771	5 014	72 922	2 766	110 229	55 457	3	3	6	Kans.
63 586	32 577	10 592	2 493	4 347	53 483	2 365	103 872	52 258	4	4	5	Ky.
334 932	142 483	47 081	34 092	32 381	291 819	7 657	267 369	166 568	1	1	1	La.
39 940	19 794	(D)	6 173	1 493	14 941	1 052	39 230	28 151	5	-	8	Maine
86 233	52 322	18 124	6 486	6 856	59 419	3 878	148 894	86 509	3	4	4	Md.
109 390	64 885	22 233	9 352	7 316	68 274	3 358	178 271	105 719	4	4	8	Mass.
165 762	76 758	54 701	10 722	8 413	142 810	5 581	362 317	200 400	3	2	6	Mich.
124 590	91 818	45 083	8 706	9 716	100 652	4 023	219 979	112 312	3	3	3	Minn.
50 860	54 865	8 639	3 814	7 437	56 295	2 702	74 521	45 404	2	3	(W)	Miss.
152 514	(D)	30 894	11 092	7 175	74 763	2 670	119 040	66 974	3	2	4	Mo.
30 843	16 346	7 803	1 336	2 019	22 579	704	34 880	18 807	11	8	4	Mont.
50 239	24 638	6 313	1 874	4 157	45 704	1 776	78 504	40 918	7	5	7	Nebr.
28 407	20 802	7 162	2 342	1 153	17 401	623	45 245	25 406	8	4	5	Nev.
10 743	(D)	1 381	688	438	7 158	383	17 619	9 580	8	11	6	N.H.
270 835	107 341	42 936	14 787	17 745	125 213	4 657	229 267	122 874	1	1	(W)	N.J.
82 133	31 041	9 227	5 535	5 617	54 924	1 888	72 583	43 964	2	2	(W)	N. Mex.
334 879	169 865	64 017	20 371	18 254	194 983	9 550	558 397	323 570	3	1	3	N.Y.
123 982	161 567	81 226	10 710	14 135	151 466	5 421	159 533	83 998	2	2	4	N.C.
19 801	11 628	3 197	1 063	1 515	25 072	846	39 520	23 376	14	13	16	N. Dak.
242 828 170 602 103 536 377 648 (D)	95 860 77 131 30 677 136 341 (D)	53 060 27 895 13 934 63 771 (D)	12 223 12 843 7 576 18 162 (D)	15 184 16 291 7 728 22 263 (D)	162 078 106 990 52 916 196 897 (D)	7 406 4 791 2 331 10 427 592	398 148 198 904 119 175 429 329 30 976	245 276 154 994 70 230 287 445 19 210	2 2 6 1	1 2 3 1 -	1 2 3 2	Ohio Okla. Oreg. Pa. R.I.
72 745	34 599	12 295	3 087	4 483	37 254	2 400	69 192	40 086	4	6	7	S.C.
16 060	8 241	1 984	538	691	15 223	641	39 405	17 068	10	7	11	S. Dak.
95 760	66 740	29 939	4 990	5 657	74 589	4 719	165 192	85 851	3	3	7	Tenn.
922 570	398 522	165 602	61 444	68 573	561 939	20 019	755 412	467 856	1	(W)	1	Tex.
38 803	29 408	7 844	2 485	2 167	39 344	3 295	151 479	112 027	9	10	1	Utah
11 593 152 429 125 730 72 667 118 394 41 540	5 779 77 699 69 917 25 101 61 777 17 147	2 480 30 448 34 890 6 813 22 643 7 003	1 074 7 394 9 236 2 078 5 718 1 681	795 9 442 10 649 4 854 4 857 2 676	(D) 113 878 95 750 60 282 90 996 31 618	298 6 652 3 323 2 223 3 752 598	12 277 207 352 207 969 77 311 180 721 23 813	6 352 122 331 121 031 54 332 98 480 13 693	22 2 2 5 4 5	20 2 2 6 3	25 4 2 9 7 6	Vt. Va. Wash. W. Va. Wis. Wyo.

Table 2. Detailed Statistics for Establishments With Payroll: 1982 and Earlier Census Years

(Thousand delice) Detail may not use to test and to read the second seco	,	.,	pidirioti or tori	me, eco appone				
ltem					Relat e	ive star stimate	dard er (percer	ror of
	1982	1977	1972	1967	1982	1977	1972	1967
Number of establishments in business during year	9 413	10 227	9 355	6 942	1	2	3	3
Number of establishments in business at end of year	9 130	(NA)	(NA)	(NA)	1	(NA)	(NA)	(NA)
Proprietors and working partners	2 132	4 035	4 360	3 633	4	4	5	5
All employees**	186 674	198 354	209 318	187 486	(W)	1	1	1
Construction workers:	141 459	145 807	156 153	139 400	l w	1	1	1
Mav	164 683 174 921	173 244	180 977 207 312	159 537	(W) (W) (W)	1	1	j
AugustNovember	157 412	191 548 181 368	187 857	186 354 172 803	(۷۷)		1	1
Average	160 473	173 093	184 199	165 354	(W)	1 1	1	1
Other employees: March	26 080	24 839	24 238	24 601	1	1	1	
	20 000	24 009	24 100	24 001	ı '	'	<u>'</u>	
Construction worker hours (thousands): January to March	62 305	(NA)	(NA)	(NA)	1	(NA)	(NA)	(NA)
April to June	76 524	(NA) (NA)	(NA) (NA)	(NA)	(w)	(NA)	(NA)	(NA)
April to June July to September October to December	83 063 72 155	(NA) (NA)	(NA) (NA)	(NA) (NA) (NA) (NA) (NA)	(W) (W)	(NA) (NA) (NA) (NA) (NA)	(NA) (NA) (NA) (NA) (NA)	(NA) (NA) (NA) (NA) (NA)
Total hours worked	294 048	(NA)	(NA)	(NA)	(W)	(NA)	(NA)	(NA)
Payroll, all employees	3 576 338	2 837 270	2 154 000	1 447 073	(W)	(W)	1	1
Payroll, construction workersPayroll, other employees	2 906 789 669 549	2 347 495 489 775	1 798 102 355 898	1 447 073 1 223 540 223 199	(%) (%) (%)	(%) (%) (%)	1	1
First quarter payroll, all employees	737 855	523 281	(NA)	(NA)	(W)	(w)	(NA)	(NA)
					, ,			
Employer costs for fringe benefits	634 002 492 489	580 131 329 226	(NA) (NA)	(NA) (NA) (NA)	(W)	888	(NA) (NA) (NA)	(NA) (NA) (NA)
Voluntary expenditures	141 512	250 905	(NA)	(NA)	1	(W)	(NA)	(NA)
All business receipts Total construction receipts Receipts for work subcontracted in from others Land receipts Other business receipts	12 128 956	9 553 498	6 369 576	4 340 469	(W) (W)	(W) (W)	1	1
Receipts for work subcontracted in from others	11 952 831 1 497 843	9 361 092 1 455 661	6 227 482 753 011	4 229 522 392 082	(VV) 2	(۷۷)	3	3
Land receipts1	(NA) 176 125	(NA) 192 406	(NA) 142 094	(NA) 111 639	(NA)	(NA)	(NA)	(NA)
	1/6 125	192 406	142 094	111 639		'	4	<u> </u>
Net construction receipts†	10 462 441	8 371 028	5 628 010	3 789 770	(W)	(W)	1	1
Value added††	7 005 322	5 522 719	3 869 700	2 604 465	(W)	(W)	1	1
Selected payments Materials, components, and supplies ² Construction work subcontracted to others Selected power, fuels, and lubricants Electricity	5 123 633 3 189 912	4 030 779	2 499 876 1 900 404	1 733 973 1 296 666 439 794	1	888	1	1
Construction work subcontracted to others	1 490 389	2 798 430 990 064	599 472	439 794	i	(W)	1	i
Selected power, fuels, and lubricants	443 331 27 432	242 285 15 966	(NA) (NA)	(NA) (NA)	1	1	(NA)	(NA)
Natural gas	7 559	6 316	(NA)	(NA)	2	2	(NA)	(NA)
Natural gas Gasoline and diesel fuel (including gasohol) Other, including lubricating oils and greases	382 139 26 200	192 902 27 119	(NA) (NA)	(NA) (NA)	1	1 2 1 1	(NA) (NA) (NA) (NA) (NA)	(NA) (NA) (NA) (NA) (NA)
Storage capacity for fuels³ (thousand gallons)	30 728	(NA)	(NA)	(NA)	1	(NA)	(NA)	(NA)
Destrict an article for marking and a second a second and		004 047					/8145	(814)
Rental payments for machinery, equipment, and structures	458 027 409 955 48 072	364 617 343 490 21 126	(NA) 260 159 (NA)	(NA) 161 344 (NA)	1	1	(NA) 1 (NA)	(NA) 1 (NA)
Selected purchased services	461 655	356 533	(NA)	(NA)	1	1	(NA)	(NA)
Communication services	46 741	356 533 29 195 9 394	(NA)	(NA)	1	1	(NA)	(NA) (NA) (NA) (NA)
Communication services Repairs to structures and related facilities Repairs to machinery and equipment	12 677 402 236	9 394 317 944	(NA) (NA)	(NA) (NA)	1	1 3 1	(NA) (NA) (NA) (NA)	(NA)
Ownership of construction projects:	11 050 501	0.004.000	0.007.400	4 000 500	040	040		
Total construction receipts Government owned	11 952 831 4 468 103 7 484 727	9 361 092 4 068 001 5 293 091	6 227 482 3 230 567 2 996 915	4 229 522 (NA) (NA)	(W)	(W)	1	(NA) (NA)

¹Data were collected separately for establishments classified in SIC 1531, Operative Builders and SIC 6552, Subdividers and Developers, Except Cemeteries. For all other industries, data are included in other business receipts.

²For 1967 and 1972, includes data for power, fuels, and lubricants.
³Data were collected only for establishments classified as heavy construction contractors.

Table 3. Assets, Capital Expenditures, and Depreciation for Establishments With Payroll: 1982 and Earlier Census Years

Item						ive star stimate		
	1982	1977	1972	1967	1982	1977	1972	1967
STRUCTURES, MACHINERY, AND EQUIPMENT								
Beginning-of-year gross book value of depreciable assets Capital expenditures, other than land	469 328 337 585	(NA) 553 821 424 337 129 485 (NA)	(NA) 351 136 284 616 66 520 (NA)	(NA) 199 122 155 392 44 126 (NA)	1 1 1 1	(NA) 1 1 2 (NA)	(NA) 2 2 4 (NA)	(NA) 2 1 5 (NA)
End-of-year gross book value of depreciable assets	4 702 601	3 155 989	2 028 677	(NA)	1	1	2	(NA)
Depreciation charges during year	615 684	324 322	271 562	(NA)	1	1	2	(NA)
Structures, Additions, and Related Facilities								
Beginning-of-year gross book value of depreciable assets Capital expenditures, other than land New structures and related facilities Used structures and related facilities Retirements and disposition of depreciable assets	34 629 29 708 4 920	(NA) 22 537 16 786 5 751 (NA)	(NA) 23 993 16 782 7 211 (NA)	(NA) 12 534 8 342 4 192 (NA)	2 2 1 11 2	(NA) 6 4 8 (NA)	(NA) 7 5 9 (NA)	(NA) 4 3 5 (NA)
End-of-year gross book value of depreciable assets	366 962	233 302	144 252	(NA)	1	2	4	(NA)
Depreciation charges during year	35 348	13 719	7 286	(NA)	3	3	4	(NA)
Machinery and Equipment								
Beginning-of-year gross book value of depreciable assets	434 699 307 876	(NA) 531 285 407 551 96 699 123 734 (NA)	(NA) 327 143 267 834 (NA) 59 309 (NA)	(NA) 186 984 147 050 (NA) 39 934 (NA)	1 1 1 1 1	(NA) 2 1 2 3 (NA)	(NA) 3 2 (NA) 4 (NA)	(NA) 3 1 (NA) 5 (NA)
End-of-year gross book value of depreciable assets	4 335 639	2 922 686	1 884 425	(NA)	1	1	2	(NA)
Depreciation charges during year	580 335	310 603	264 276	(NA)	1	1	2	(NA)

Table 4. Value of Inventories for Establishments With Payroll: 1982 and 1981

[Thousand dollars. Detail may not add to total due to rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Item	Establishments with payroll	Relative standard error of estimate (percent)
All establishments: Number	9 413 11 952 831	1 (W)
Establishments with inventories: Number Total construction receipts Inventories!:	1 685 3 883 564	6 1
End of 1982, total Value for establishments with LIFO reserve Amount of LIFO reserve Value for establishments with no LIFO reserve	115 023 4 377 1 722 110 646	2 16 37 1
End of 1981, total	107 779 4 779 1 746 103 000	2 13 26 2
Establishments with no inventories: Number Total construction receipts	7 728 8 069 267	1 1

¹Inventories at cost or market prior to any adjustment to correct to LIFO values.

Table 5. Selected Statistics for Establishments With Payroll by Employment Size Class: 1982 and 1977

		Establishments with an average of—									
Selected statistics	Total	1 to 4 employees	5 to 9 employees	10 to 19 employees	20 to 49 employees	50 to 99 employees	100 to 249 employees	250 to 499 employees	500 to 999 employees	1,000 employees or more	
1982											
Number of establishments All employees** Payroll, all employees Construction worker hours (thousands) All business receipts Total construction receipts Net construction receipts† Value added†† Payments for materials, components, supplies, and fuels	9 413 186 674 3 576 338 294 048 12 128 956 11 952 831 10 462 441 7 005 322 3 633 243	3 417 7 510 92 740 9 808 429 314 424 971 376 823 242 808 138 358	2 037 13 863 207 444 17 902 834 353 823 382 731 238 454 076 288 133	1 352 082 866 721 507 019	2 529 049 1 631 861 936 781	2 151 505 1 859 413 1 217 373 669 313	1 862 993 1 331 059 586 041	44 15 171 337 221 27 185 981 106 973 509 867 116 673 905 200 808	19 12 176 243 486 20 634 1 021 215 647 622 555 187 351 225 306 788	5 7 782 160 869 13 038 (D) 363 012 328 539 236 293 (D) 34 473	
Payments for construction work subcontracted to others	1 490 389 458 027 469 328 4 702 601	48 147 12 830 15 267 214 778	92 143 25 344 29 485 381 545	179 069 55 308 64 342 651 575	398 236 102 532 107 351 1 113 510	292 092 72 843 67 196 764 201	247 400 94 501 89 495 722 179	106 393 41 053 51 380 353 867	92 435 28 847 29 504 265 543	34 473 24 768 15 307 235 402	
All employees** Total construction receipts	198 354 9 361 092 5 522 719	9 027 350 049 203 624	14 387 622 707 357 628	23 248 1 078 947 585 291	45 416 2 151 741 1 206 398	37 146 1 773 411 977 591	24 474 1 204 017 689 525	24 455 1 542 117 1 502 663	9 468 (D) (D)	10 734 638 104 (D)	
All employees**	W)	3 4 7	3 3 8	3 2 4	1 1 1	(%) (%) (%)	(W) (W) (W)	(%) (%) (%)	(X) (X) (X)	(W) (W) (W)	

Note: Underscored data fields include data from adjoining columns which have been withheld to avoid disclosing data for individual companies.

Table 6. Selected Statistics for Establishments With Payroll by Receipts Size Class: 1982 and 1977

[Thousand dollars. Detail may not add to total due to rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

			Establishments with all business receipts of—								
Selected statistics	Total	Less than \$25,000	\$25,000 to \$49,999	\$50,000 to \$99,999	\$100,000 to \$249,999	\$250,000 to \$499,999	to	\$1,000,000 to \$2,499,999	\$2,500,000 to \$4,999,999	\$5,000,000 to \$9,999,999	\$10,000,000 or more
1982											
Number of establishments All employees** Payroll, all employees Construction worker hours (thousands) All business receipts Total construction receipts Net construction receipts†	9 413 186 674 3 576 338 294 048 12 128 956 11 952 831 10 462 441	00000000	461 766 4 294 788 17 091 16 881 15 479	1 021 2 776 22 210 2 879 74 745 73 653 67 166	1 954 8 482 97 398 10 653 321 442 317 673 293 823	1 558 12 886 175 644 17 016 558 176 551 347 508 134	1 442 20 377 322 935 28 678 1 032 654 1 016 455 908 544	1 411 37 012 648 882 55 817 2 202 993 2 173 088 1 927 561	624 30 624 594 211 49 167 2 142 775 2 118 554 1 841 584	275 25 017 528 327 41 878 1 847 460 1 816 437 1 558 941	177 48 156 1 180 380 86 609 3 924 963 3 862 146 3 335 268
Value added†† Payments for materials, components, supplies,	7 005 322	(S)	10 203	44 521	202 572	341 270	601 472	1 231 750	1 177 016	1 047 596	2 345 053
and fuelsPayments for construction work subcontracted	3 633 243	(S)	5 486	23 737	95 019	173 692	323 271	725 716	688 789	542 368	1 053 031
to others Rental payments for machinery, equipment, and structures Capital expenditures, other than land	1 490 389 458 027 469 328 4 702 601	(S) (S) (S) (S)	1 401 577 336 9 038	6 487 1 919 2 264 44 388	23 850 9 249 13 748 170 909	43 212 18 329 23 865 294 767	107 910 34 661 41 557 442 049	245 527 75 904 90 462 943 785	276 970 80 578 74 617 753 809	257 496 66 265 58 208 634 748	526 878 170 397 164 192 1 405 879
1977											
All employees** Total construction receipts Value added††	198 354 9 361 092 5 522 719	1 258 9 135 5 190	1 528 28 214 17 222	4 147 102 757 61 188	12 170 351 260 216 257	16 012 559 392 326 854	23 659 923 798 547 269	42 156 1 864 494 1 075 901	31 007 1 634 205 915 067	166 417 13 887 838 12 357 774	(NA) (NA) (NA)
1982 RELATIVE STANDARD ERROR OF ESTIMATE (PERCENT)											
All employees** Net construction receipts†	\$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	-	8 6 21	6 5 12	4 3 7	3 3 7	3 3 6	1 1 2	(W) (W) (W)	888	(W) (W) (W)

Note: Underscored data fields include data from adjoining columns which have been withheld to avoid disclosing data for individual companies.

Data for this size class include establishments with receipts of \$10,000,000 or more, which were not tabulated separately in 1977.

Table 7. Construction Receipts for Establishments With Payroll by Type of Construction: 1982 and 1977

[Thousand dollars. Detail may not add to total due to rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

		Construction receipts		Relative	standard	d error of
Type of construction	Total	New construction ¹	Maintenance and repair		ate (perce column—	
	Α	В	С	Α	В	С
1982						
Total construction receipts‡	11 952 831	10 084 634	1 868 196	(W)	(W)	= 1
Building construction	182 070	160 212	21 858	2	2	4
Nonbuilding construction Highways, streets, and related facilities Bridges, tunnels, and elevated highways Conservation and development construction. Power and communication transmission lines, towers, and related facilities Sewers, water mains, and related facilities Sewers, sewer lines, and related facilities Water mains and related facilities Pipeline, other than sewer or water lines Sewage treatment and water treatment plants Sewage treatment plants Water treatment plants Heavy industrial facilities Other nonbuilding construction Construction work, n.s.k.	11 296 242 386 985 95 422 65 304 2 706 949 4 962 852 3 199 789 1 763 063 2 547 657 240 676 151 539 104 679 185 718	9 507 813 319 094 68 369 54 842 2 182 172 4 376 089 2 869 676 1 506 412 2 063 432 219 407 139 290 80 117 81 147 143 261 416 607	1 788 428 67 890 27 052 10 462 524 777 586 762 330 112 256 650 484 224 21 268 12 266 9 022 23 532 42 461	(W) 1 1 2 1 1 1 1 (W) 1 1 3 3 4	(W) 1 1 1 1 1 1 1 1 1 1 3 1 5 3	1 2 (W) 9 1 1 2 2 1 4 7 4 3 4 4 3 3
1977						
Total construction receipts‡	9 361 092	8 361 704	999 388	(W)	(W)	1
Building construction	200 099	171 177	28 922	2	2	4
Nonbuilding construction Highways, streets, and related facilities Power and communication transmission lines, towers, and related facilities Sewers, water mains, and related facilities Pipeline, other than sewer or water lines Sewage treatment and water treatment plants Other nonbuilding construction	8 719 911 365 681 1 366 865 4 744 940 1 637 966 220 703 383 756	7 775 678 319 815 1 117 467 4 432 957 1 378 304 210 059 317 076	944 233 45 866 249 398 311 983 259 662 10 644 66 680	(W) 3 1 1 (W) 1	(W) 3 1 (W) 1 (V)	1 2 3 2 1 3 3
Construction work, n.s.k.	441 109	414 700	26 409	2	2	2

¹For this industry, data for additions and alterations were not collected separately. These data are included with *New Construction."

Table 8. Selected Statistics for Establishments With Payroll by Specialization in Types of Construction: 1982

[Thousand dollars. Detail may not add to total due to rounding. This table presents selected statistics for establishments according to degree of specialization in major types of construction work. If number of establishments or total receipts for a given type of specialization are relatively insignificant, data may not be shown. In addition, data are not shown in this table where distribution of construction receipts by type of construction was not provided in table 7. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

				Total constru	ction receipts			Payments for		Relativ	
Item	Number of establishments	Ail employees**	Payroll, all employees	For all types	For specialized type	Net construction receipts†	Value added††	construction work sub- contracted to others	of (pe	estima ercent) olumn	ate for
	А	В	С	D	E	F	G	н	В	D	Н
All establishments	9 413	188 874	3 578 338	11 952 831	8 148 238	10 462 441	7 005 322	1 490 389	(W)	(W)	1
Establishments specializing less than 51 percent Establishments specializing 51 percent or more	1 677 7 736	37 834 148 840	744 000 2 832 338	2 889 690 9 063 141	(NA) 8 146 238	2 431 697 8 030 744	1 424 005 5 581 317	457 993 1 032 396	1 1	(W)	1
POWER AND COMMUNICATION TRANSMISSION LINES, TOWERS, AND RELATED FACILITIES											
All establishments specializing in type	2 230	57 869	937 594	2 669 139	2 557 653	2 418 471	1 846 023	250 668	1	1	3
Establishments with— 100 percent specialization 90 to 99 percent specialization 80 to 89 percent specialization 70 to 79 percent specialization 60 to 69 percent specialization 60 to 69 percent specialization	2 002 79 55 40 33 20	48 596 3 726 1 291 1 325 1 956	763 707 65 194 19 130 27 855 37 579	2 201 850 149 925 51 355 71 811 126 127	2 201 850 140 443 42 627 53 010 82 067 37 653	1 988 668 144 876 47 654 66 649 108 745	1 512 971 123 141 33 351 54 064 78 702	213 182 5 049 3 701 5 162 17 382	1 3 4 3 2 2	1 2 5 1 3	34 52 22
51 to 59 percent specialization	20	975	24 129	68 071	37 653	61 879	43 793	6 192	2		
All establishments specializing in type	2 242	31 467	623 892	2 518 599	2 084 905	2 158 166	1 208 881	360 433	1	1	1
Establishments with— 100 percent specialization 90 to 99 percent specialization 80 to 89 percent specialization 70 to 79 percent specialization 60 to 69 percent specialization 51 to 59 percent specialization	1 204 165 167 262 347 96	13 673 2 197 2 620 3 762 6 768 2 446	263 461 47 340 54 320 77 919 133 456 47 395	1 073 255 172 153 208 314 301 635 558 430 204 812	1 073 255 159 035 172 312 219 256 347 885 113 160	912 145 148 147 181 655 264 942 477 094 174 182	509 688 91 394 106 120 140 392 257 184 104 101	161 110 24 005 26 659 36 692 81 336 30 630	2 6 4 3 2 3	253323	3 4 1 3
PIPELINE, OTHER THAN SEWER OR WATER LINES											
All establishments specializing in type	886	38 165	900 824	2 403 760	2 257 791	2 181 591	1 754 921	222 169	1	(W)	1
Establishments with— 100 percent specialization 90 to 99 percent specialization 80 to 89 percent specialization 70 to 79 percent specialization 60 to 69 percent specialization 51 to 59 percent specialization	659 72 36 55 56 7	27 505 4 774 1 617 2 302 1 523 444	611 984 130 781 45 823 56 157 46 044 10 034	1 587 998 368 466 123 928 159 990 138 700 24 678	1 587 998 343 215 104 183 118 659 89 733 14 000	1 456 370 328 562 112 899 138 562 122 676 22 522	1 181 200 264 409 93 749 106 188 96 122 13 252	131 628 39 904 11 029 21 428 16 024 2 156	1 1 4 4 4 4 10	1 1 3 2 3 3	1 1 3 2 4 3
WATER MAINS AND RELATED FACILITIES											
All establishments specializing in type	992	12 435	223 519	971 865	768 645	830 731	484 394	141 134	2	2	2
Establishments with— 100 percent specialization 90 to 99 percent specialization 80 to 89 percent specialization 70 to 79 percent specialization 60 to 69 percent specialization 51 to 59 percent specialization	429 92 73 144 173 80	3 739 1 190 1 550 1 740 2 450 1 765	63 263 20 245 28 698 32 343 45 398 33 571	294 059 90 720 96 713 151 808 198 381 140 184	294 059 83 649 79 813 110 576 123 349 77 196	248 371 79 442 82 871 127 200 172 408 120 439	150 612 46 329 40 818 70 711 89 261 86 661	45 688 11 278 13 842 24 608 25 973 19 745	5 7 5 8 6 4	3 6 5 5 4 2	4 7 3 7 5

Table 9. Quarterly Construction Worker Hours and Employment for Establishments With

		Average		January 1	to March	April to June			
Location of establishment	Number of establishments	number of construction workers	Construction worker hours (thousands)	Construction workers ¹	Hours worked (thousands)	Construction workers ¹	Hours worked (thousands)		
	A	В	С	D	E	F	G		
United States	9 413	160 473	294 048	141 459	62 305	164 683	76 524		
Alabama Alaska Arizona Arkansas California	125	2 780	4 883	2 638	1 132	2 827	1 255		
	34	1 222	1 375	1 056	352	1 415	360		
	116	1 464	2 560	1 155	469	1 458	648		
	150	1 606	3 044	1 541	726	1 769	828		
	875	13 165	21 503	12 233	4 799	13 647	5 741		
Colorado Connecticut Delaware District of Columbia Florida	204	3 741	6 439	3 255	1 341	3 569	1 553		
	105	1 046	1 890	842	355	1 027	470		
	16	581	1 283	500	272	623	344		
	1	(D)	(D)	(D)	(D)	(D)	(D)		
	446	9 194	18 010	9 772	4 667	9 485	4 629		
Georgia	288	6 862	12 907	6 205	2 755	6 802	3 182		
	21	378	439	427	138	434	126		
	54	785	1 395	689	283	823	368		
	327	5 745	10 522	4 721	2 018	5 894	2 722		
	157	2 497	4 093	1 911	771	2 496	1 033		
lowaKansasKentuckyLouisianaKaine	170	1 307	2 359	928	379	1 287	596		
	177	2 018	3 698	1 861	811	2 047	975		
	136	1 735	3 152	1 633	666	1 718	837		
	231	6 384	12 340	6 433	3 172	6 458	3 109		
	34	782	1 585	633	334	845	430		
Maryland	135	2 560	4 834	2 287	1 016	2 646	1 272		
	174	2 386	4 196	1 703	706	2 493	1 093		
	309	3 001	5 609	1 989	915	3 194	1 429		
	217	2 580	4 479	1 432	572	2 724	1 255		
	72	2 689	5 482	2 457	1 248	2 662	1 353		
Missouri	189	2 995	5 120	2 591	979	3 160	1 377		
	69	601	1 046	382	153	519	223		
	112	869	1 629	696	276	895	438		
	36	437	756	400	150	435	203		
	32	326	564	275	113	364	144		
New Jersey	219	3 999	7 594	3 138	1 357	4 498	2 180		
	62	2 034	3 929	1 917	909	2 045	1 006		
	426	5 554	9 565	4 155	1 705	5 870	2 545		
	288	6 230	12 005	6 013	2 706	6 229	3 080		
	56	361	632	210	86	362	140		
OhioOklahomaOklahomaOregonPennsylvaniaRhode Island	323	5 683	9 798	4 110	1 640	5 889	2 501		
	266	4 870	8 153	3 797	1 586	4 370	1 886		
	141	1 941	3 257	1 641	640	1 790	795		
	290	7 947	14 724	6 826	3 090	8 235	3 885		
	21	(D)	(D)	(D)	(D)	(D)	(D)		
South Carolina South Dakota Tennessee Texas Utah	106	2 261	4 816	2 197	1 175	2 335	1 241		
	52	330	596	229	99	368	166		
	172	2 935	5 702	2 994	1 367	3 063	1 531		
	1 041	20 963	41 873	20 712	9 819	22 151	11 463		
	92	848	1 578	616	281	881	429		
Vermont	24	292	585	120	58	299	134		
	226	4 956	9 446	4 526	2 043	4 833	2 363		
	232	2 519	3 965	2 342	885	2 534	947		
	115	1 838	3 007	1 286	435	1 903	759		
	195	2 190	3 756	1 205	475	2 347	981		
	44	751	1 485	625	302	734	381		

¹Sum of construction workers during pay periods including 12th of March, May, August, and November.

Payroll by State: 1982

July to Se	ptember	October to I	December											1
Construction workers ¹	Hours worked (thousands)	Construction workers ¹	Hours worked (thousands)			Relative s	standard e	rror of esti	mate (perc	ent) for co	lumn—			Location of establish- ment
Н		J	к	В	С	D	Е	F	G	Н	1	J	к	ment
174 921	83 06 3	157 412	72 1 55	(W)	(W)	(W)	(W)	(W)	(W)	(W)	(W)	(W)	(W)	U.S
2 864 1 483 1 583 1 623 14 142	1 318 396 719 783 6 045	2 742 931 1 592 1 461 12 294	1 177 266 722 706 4 916	4 2 4 8 1	4 3 4 6 1	4 5 4 8 1	4 7 5 7 1	5 1 4 8	5 3 5 7 1	4 2 4 9 1	4 3 5 8 1	4 3 4 8 1	4 4 5 8 1	Ala. Alaska Ariz. Ark. Calif.
4 073 1 178 632 (D) 9 065	1 823 551 363 (D) 4 490	3 988 1 081 566 (D) 8 359	1 721 513 303 (D) 4 223	2 7 4 - 1	2 7 4 - 1	3 7 4 - 1	4 7 4 - 1	3 7 4 - 2	3 6 4 - 2	2 8 5 - 2	3 8 5 - 2	2 8 5 - 1	2 8 6 - 1	Colo. Conn. Del. D.C. Fla.
7 442 358 800 6 556 2 651	3 647 100 375 3 187 1 156	6 922 288 809 5 675 2 876	3 322 73 367 2 593 1 132	2 2 7 1 3	2 2 5 1 3	2 1 6 1 3	2 2 5 1 4	2 3 8 1 3	2 4 8 1 4	2 3 7 2 3	2 4 6 1 3	2 3 7 2 2	2 6 6 1 3	Ga. Hawaii Idaho III. Ind.
1 578 2 102 1 830 6 460 886	753 1 035 862 3 188 458	1 375 1 948 1 710 6 111 750	629 875 785 2 871 362	6 3 4 1 5	6 3 4 1 4	5 3 4 1 5	7 3 6 1 5	7 3 4 1 4	8 3 5 1 4	6 3 4 2 5	6 4 5 2 5	6 4 4 2 5	7 5 5 2 5	lowa Kans. Ky. La. Maine
2 741 2 682 3 430 3 364 3 025	1 346 1 225 1 665 1 511 1 546	2 519 2 607 3 277 2 718 2 602	1 199 1 170 1 598 1 139 1 333	3 5 3 3 2	3 4 2 3 2	3 5 4 4 2	3 5 3 5 2	3 5 3 4 2	3 5 3 4 2	3 5 4 4 2	3 5 3 4 2	4 5 4 4 3	3 4 3 4 2	Md. Mass. Mich. Minn. Miss.
3 566 775 1 006 486 336	1 653 367 518 197 160	2 607 692 854 431 329	1 110 301 396 205 147	3 9 8 7 7	3 7 7 4 7	3 9 8 7 8	4 11 10 7 10	3 9 8 6 8	3 9 8 4 8	3 10 8 7 7	3 7 8 5 8	4 9 8 11 8	5 8 10 7 10	Mo. Mont. Nebr. Nev. N.H.
4 530 2 241 5 916 6 292 471	2 249 1 076 2 676 3 180 230	3 779 1 918 6 074 6 314 404	1 807 937 2 638 3 038 175	1 2 3 2 15	1 2 3 2 14	1 4 4 2 17	1 4 4 2 22	1 2 3 3 15	1 2 3 3 16	1 2 2 2 2 12	1 2 3 2 13	1 2 3 2 18	2 2 3 3 17	N.J. N. Mex. N.Y. N.C. N. Dak.
7 236 5 545 2 305 8 596 (D)	3 394 2 393 964 4 003 (D)	5 352 5 702 1 979 8 043 (D)	2 262 2 286 856 3 744 (D)	2 2 6 1 -	1 2 3 1	2 3 6 1 -	2 3 3 1 -	2 2 4 1 -	2 2 3 1 -	1 2 8 1 -	1 2 4 1 -	3 2 7 1	2 2 3 1	Ohio Okla. Oreg. Pa. R.I.
2 276 386 3 043 21 869 1 056	1 227 184 1 549 11 258 522	2 173 320 2 555 18 730 792	1 171 146 1 253 9 331 345	4 10 3 1 9	4 11 3 1 8	5 9 3 1 12	4 15 3 1 12	4 11 3 1 9	4 13 3 1 9	4 11 3 1 8	4 14 3 1 7	4 12 3 1 1	4 14 4 1 11	S.C. S. Dak. Tenn. Tex. Utah
363 5 254 2 909 2 092 2 679 876	191 2 566 1 220 962 1 218 431	372 5 136 2 204 2 005 2 432 763	201 2 473 911 849 1 079 369	22 2 3 5 4 4	22 2 2 5 4 3	26 2 2 7 5	30 2 3 8 5	22 2 2 5 4 4	25 2 3 5 4	22 3 3 5 4	22 2 3 6 5	22 2 3 5 4 4	22 2 3 6 4	Vt. Va. Wash. W. Va. Wis. Wyo.

Table 10. Construction Receipts for Establishments With Payroll by Location of Construction Work: 1982 and 1977

Location of construction work	Construction receipts for	establishmer	work done by its located in State	establishmen	work done by ts not located State	1977 construction	Percent change 1982/	Relative staterror of estite (percent)		nate or
		Number	Construction receipts	Number	Construction receipts	receipts for work done in this State	1977 (col A÷F)	0	olumn-	
	А	В	С	D	Е	F	G	А	С	Ε
United States	11 952 831	9 057	9 275 188	3 781	2 677 642	9 361 092	27.7	(W)	(W)	(W)
Alabama Alaska Arizona Arkansas California	187 006 233 162 179 580 99 370 1 320 884	117 33 112 143 873	119 533 152 383 113 330 64 246 1 276 776	111 21 56 53 57	67 472 80 778 66 249 35 123 44 108	153 131 608 153 147 481 75 595 1 022 371	22.1 -61.7 21.8 31.5 29.2	4 1 3 6 1	6 2 5 9 1	3 (W) (W) (W) 2
Colorado Connecticut Delaware District of Columbia Florida	281 200 79 034 31 144 22 761 715 771	197 99 16 1 436	209 020 61 342 22 291 (D) 579 836	67 38 25 32 142	72 180 17 692 8 852 (D) 135 934	165 686 88 056 23 162 25 853 358 987	69.7 -10.2 34.5 -12.0 99.4	3 4 2 12 1	3 5 . 2 -	1 8 1 - (W)
Georgia Hawaii Idaho Illinois Indiana	285 606 51 629 45 940 360 758 186 683	252 21 52 316 147	207 760 36 289 21 946 317 001 114 123	109 7 29 92 123	77 845 15 340 23 994 43 757 72 559	147 368 28 988 27 149 468 270 161 415	93.8 78.1 69.2 -23.0 15.7	3 5 5 2 2	5 7 10 3 3	3 (W) 4 3 3
lowa	108 817 134 384 164 165 525 433 66 134	165 173 135 224 34	71 830 94 530 75 563 424 881 32 101	97 86 123 110 31	36 986 39 854 88 601 100 552 34 033	128 703 115 364 128 805 314 378 50 768	-15.5 16.5 27.5 67.1 30.3	4 3 1 5	6 5 6 1 10	2 2 2 1 5
Maryland Massachusetts Michigan Minesota Mississippi	177 399 198 871 280 934 259 620 93 543	134 167 307 211 69	131 498 155 192 238 419 193 287 53 296	105 51 67 64 84	45 901 43 678 42 515 66 332 40 247	167 802 155 610 351 188 165 554 75 146	5.7 27.8 -20.0 56.8 24.5	4 5 3 5	5 6 3 4 8	7 6 5 1 5
Missouri	200 482 92 670 121 131 63 224 38 754	162 69 110 36 32	131 339 42 572 56 014 42 189 11 873	152 45 64 36 40	69 142 50 097 65 117 21 035 26 881	116 902 33 529 73 154 43 859 33 200	71.5 176.4 65.6 44.2 16.7	3 5 4 5 4	4 11 8 5 15	2 4 1 10 (W)
New Jersey	343 717 174 117 562 129 282 115 89 993	206 61 407 267 56	309 879 102 234 505 267 216 489 26 848	63 70 113 84 42	33 838 71 883 56 862 65 626 63 144	204 162 80 697 540 599 155 215 70 454	68.4 115.8 4.0 81.8 27.7	2 2 2 3 5	2 2 2 4 17	6 3 4 5
Ohio	338 085 212 550 94 600 449 730 28 253	302 253 137 284 21	259 113 154 432 83 341 386 812 (D)	105 100 32 136 23	78 972 58 118 11 258 62 917 (D)	333 112 122 350 122 795 363 436 38 774	1.5 73.7 -23.0 23.7 -27.1	2 3 3 2 7	2 5 4 2 -	2 2 5 5
South Carolina	160 199 23 537 164 238 1 366 682 76 958	101 51 165 985 92	83 428 13 458 135 439 1 158 707 59 853	139 37 - 114 176 29	76 771 10 079 28 798 207 974 17 105	80 894 43 395 126 520 733 889 113 855	98.0 -45.8 29.8 86.2 -32.4	4 8 3 1 9	7 15 4 1 12	6 4 5 (W)
Vermont Virginia Washington West Virginia Wisconsin Wyoming	20 681 283 344 193 290 136 383 199 934 146 181	22 221 230 112 191 40	14 946 216 054 173 628 81 349 170 442 52 400	17 97 51 103 58 63	5 735 67 290 19 661 55 034 29 491 93 780	18 662 237 193 194 259 85 716 183 516 56 063	10.8 19.5 5 59.1 8.9 160.7	15 2 4 5 4 2	21 3 4 8 4 3	11 2 9 3 2 3

Table 11. All Business Receipts for Establishments With Payroll by Kind of Business **Activity: 1982 and 1977**

[Thousand dollars. Detail may not add to total due to rounding. Based on their primary business activity or combination of activities, establishments were classified into this specific industry. These establishments, however, may also be engaged in other kinds of business activities. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Primary and other kinds of business activities	All b	usines	Relative standard error of estimate (percent)		
		1982	1977	1982	1977
All kinds of business	12 128	956	9 553 498	(W)	(W)
General building contractor	181 367 10 570 43 68		138 227 576 998 7 874 049 71 323 (NA)	4 1 (W) 2 1	3 2 (W) 6 (NA)
Electrical contractor	6 150 3 58 11	923 476 634 290 209	16 758 64 475 11 758 (NA) 36 774	6 2 6 2 5	1 3 3 (NA) 2
Architectural and engineering services for others Manufacturing Rental of construction machinery or equipment to others Retail trade Other activities	21	683 736 730 011 566	12 663 43 135 53 835 41 346 612 157	3 5 2 3 3	(W) 2 2 2

Table 12. Profile of Establishments With Payroll in This Industry: 1982 and Earlier Census Years

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Selected statistics	1982	1977	1972	Relative standard error of estimate (percent) for 1982
AVERAGE PER ESTABLISHMENT				
Number of employees**	19.8 17.1 2.8 379.9 308.8 71.1	19.4 16.9 2.4 277.4 229.5 47.9	22.4 19.7 2.6 230.3 192.2 38.0	(V) (V) 1 (V) (V) (V)
All business receipts	1 288.5 1 269.8 386.0 158.3 49.9 499.6	934.1 915.3 297.3 96.8 54.2 308.6	680.9 665.7 203.1 64.1 37.5 216.9	(W) (W) 1 1 1 1
AVERAGE PER EMPLOYEE Payroll, all employees	19.2 65.0 37.5	14.3 48.2 27.8	10.3 30.4 18.5	(V) (W) (W)
AVERAGE PER CONSTRUCTION WORKER				
Construction worker wages do_ Total construction receipts do_ Construction worker hours thousand_	18.1 74.5 1.8	13.6 54.1 (NA)	9.8 33.8 (NA)	(W) (W) (W)
AVERAGE PER OTHER EMPLOYEE		:		
Other employee salaries	25.7	19.7	14.7	(W)
AVERAGE PER DOLLAR OF TOTAL CONSTRUCTION RECEIPTS				
Payroll, all employees	.297 .257 .103 .042 .035	.303 .325 .106 .059 .039	.346 .305 .096 .056 (NA)	(W) 1 1 1 1

Table 13. Selected Industry Ratios for Establishments With Payroll by State: 1982

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

[For meaning of appreviations and sympolis, see introductory					Average per dollar of total construction receipts				
Location of establishment	Average number of employees** per estab- lisment	Payroll per employee (\$1,000)	Construction worker hours per construction worker (thousands)	Total construction receipts per construction worker (\$1,000)	Payroll, all employees	Payments for materials, components, supplies, and fuels	Payments for construction work sub-contracted to others	Capital expenditures, other than land	Rental payments for machinery, equipment, and structures
United States	19.8	19.2	1.8	74.5	.299	.304	.125	.039	.038
Alabama Alaska Arizona Arkansas California	25.2 45.5 15.0 11.9 17.6	13.9 27.9 19.1 14.2 23.0	1.8 1.1 1.7 1.9 1.6	52.4 126.3 87.1 53.8 101.2	.300 .279 .261 .294 .266	.357 .385 .379 .315	.144 .109 .129 .097 .126	.041 .028 .029 .032 .024	.038 .046 .044 .034 .043
Colorado	21.3 11.8 40.3 (D) 24.0	17.7 19.1 17.7 (D) 15.4	1.7 1.8 2.2 (D) 2.0	66.1 69.6 57.7 (D) 67.3	.311 .325 .340 (D) .265	.298 .309 (D) (D) .323	.093 .112 .070 (D) .168	.049 .042 .095 (D) .037	.052 .041 .021 (D) .038
Georgia Hawaii Idaho Illinois Indiana	27.2 22.1 17.1 20.4 18.8	14.9 19.5 19.4 25.5 19.7	1.9 1.2 1.8 1.8 1.6	55.1 96.0 56.7 79.1 70.1	.308 .250 .404 .373 .334	.375 .268 .414 .284 .321	.127 .165 .081 .120	.056 .030 .022 .021 .048	.019 .032 *.037 .031 .025
lowa Kansas Kentucky Louisiana Maine	9.2 13.0 14.8 33.0 25.7	18.7 19.1 15.7 21.1 21.6	1.8 1.8 1.8 1.9 2.0	79.8 74.8 60.6 80.8 97.0	.282 .291 .301 .311 .249	.391 .380 .310 .276 .261	.143 .110 .101 .091 (D)	.054 .033 .041 .063 .020	.044 .025 .024 .066 .081
Maryland	22.1 16.6 12.0 13.9 41.8	17.2 18.0 22.0 23.4 13.4	1.9 1.8 1.9 1.7 2.0	60.2 81.2 98.0 99.4 41.3	.332 .268 .277 .275 .363	.339 .335 .261 .358 .494	.118 .115 .186 .176 .078	.044 .038 .029 .038 .067	.042 .048 .036 .034
Missouri Montana	18.4 11.0 8.8 15.0 11.5	20.5 19.2 19.4 25.2 14.6	1.7 1.7 1.9 1.7	76.7 90.1 92.7 127.3 48.8	.311 .269 .238 .244 .339	(D) .302 .306 .374 (D)	.134 .144 .078 .129 .087	.031 .037 .052 .021 .028	.048 .025 .023 .042 .043
New Jersey	21.6 37.3 15.8 24.7 7.9	26.2 17.5 21.8 14.4 19.0	1.9 1.9 1.7 1.9 1.8	104.6 59.4 101.4 57.6 95.1	.297 .334 .261 .285 .244	.257 .257 .302 .450 .339	.103 .076 .114 .226 .093	.042 .046 .032 .039 .044	.035 .046 .036 .030
Ohio Oklahoma Oregon Pennsylvania Rhode Island	20.6 21.2 15.2 32.3 (D)	20.2 17.0 21.2 20.6 (D)	1.7 1.7 1.7 1.9 (D)	67.7 56.0 76.0 72.1 (D)	.350 .352 .307 .337 (D)	.249 .283 .208 .238 (D)	.138 .102 .094 .111 (D)	.039 .060 .052 .039 (D)	.032 .047 .051 .032 (D)
South Carolina	23.8 7.8 20.0 22.8 10.8	13.4 15.4 13.9 18.9 18.1	2.1 1.8 1.9 2.0 1.9	52.2 78.1 65.3 70.0 87.9	.286 .242 .250 .306 .240	.293 .320 .348 .272 .395	.104 .077 .156 .113 .105	.038 .027 .030 .047 .029	.026 .021 .026 .042 .033
Vermont	14.8 24.8 13.6 18.2 13.2 19.6	15.1 15.1 22.2 18.8 21.7 20.6	2.0 1.9 1.6 1.6 1.7 2.0	66.1 52.1 90.5 54.9 91.4 84.6	279 .327 .306 .390 .280	.299 .301 .307 .249 .309 .270	.129 .118 .153 .068 .113 .110	.041 .037 .047 .048 .024 .042	.056 .029 .041 .021 .029

APPENDIX A. Explanation of Terms

Construction—Is composed of three broad categories: (1) new construction, (2) additions and alterations, and (3) maintenance and repair. "New construction" includes the complete, original erection of structures and essential service facilities and the initial installation of integral equipment such as elevators and escalators. "Additions and alterations" includes construction activity making structural changes to existing facilities. "Maintenance and repair" includes the restoration of existing buildings or other structures or their service facilities, including the replacement of integral parts. Repainting, repapering, reroofing, etc., are also included.

Construction includes:

- special trade contracting such as electrical work, painting, and carpentering on mobile structures (trailers, mobile homes, and ships).
- support activities by construction contractors on mineral properties, except the following: sinking mine shafts; tunneling and shoring mines; erection, repairing and dismantling of drilling rigs; and building well foundations.
- the physical development of land for purposes other than agriculture.
- demolition of existing structures.

Construction does not include:

- · shipbuilding.
- manufacturing of other mobile structures.

Number of establishments in business during year—Includes all establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments which were inactive or idle for the entire year were not included.

Number of establishments in business at end of year—Includes all full-year or part-year establishments that were in business at the end of 1982.

Proprietors and working partners—These data were not collected on the census report forms. The data shown are based on crediting each sole proprietorship establishment with one active proprietor and each partnership establishment with two working partners. The partnership factor was based on information received during a large-scale test conducted in prior years.

All employees—Comprised all full-time and part-time employees on the payrolls of construction establishments who worked or received pay for any part of the pay period including the 12th of March, May, August, and November. Included are all persons on paid-sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included, but proprietors and partners of unincorporated firms are excluded.

Total employment is calculated for each establishment and is derived by summing the construction workers data reported for March, May, August, and November, dividing by 4 and adding to it the number of other employees reported for March.

This approach was designed to simplify the questionnaire format and the reporting requirements of respondents. The industry average of these four selected pay periods approximates very closely the average employment for the year that would be obtained by using pay periods in all 12 months for almost all of the construction industries.

Construction workers—Includes all workers up through the working supervisor level directly engaged in construction operations, such as painters, carpenters, plumbers, and electricians. Included are journeymen, mechanics, apprentices, laborers, truck drivers and helpers, equipment operators, and on-site record keepers and security guards. Supervisory employees above the working supervisor level are excluded from this category but are included in the "other employees" category.

Other employees—Includes employees in executive, purchasing, accounting, personnel, professional, technical activities, and routine office functions. Also included are supervisory employees above the working supervisor level.

Construction worker hours—Includes the total number of hours worked by construction workers. Construction worker hours were collected for each of the four quarters of 1982 and are published in the detailed statistics tables.

Payroll—Includes the gross earnings paid in the calendar year 1982 to all employees on the payroll of construction establishments. It includes all forms of compensation, such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick-leave pay, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation, but excludes payments to the proprietor or partners, if an unincorporated concern.

Payroll data were collected and tabulated for the employment categories described above and separately for the first quarter of 1982.

Payroll data for auxiliary establishments of multiestablishment companies are not included in these totals. Selected data for these types of establishments are found in the industry summary report and the 1982 Enterprise Statistics reports.

Employer costs for fringe benefits—Represents expenditures made by the employer during 1982 for legally required and voluntary fringe benefit programs for employees. These include employers' Social Security contributions, unemployment compensation, workers' compensation, State temporary disability payments, union negotiated benefits, life insurance premiums, pension plans, insurance premiums on hospital and medical plans, and welfare plans.

All business receipts—Includes all receipts from general contracting, special trade contracting or subcontracting, and land development and improvement work. It also includes all receipts from the sale of land (not recorded as fixed assets of the reporting establishments) and buildings built for sale. All other receipts from the reporting establishment's other business operations (rental of equipment to others, wholesale or retail sales, etc.) are also included.

Money obtained during the year in the form of construction loans is not treated as receipts, nor is money realized from the sale or other disposition of the establishment's fixed assets.

Also excluded are receipts from operations in foreign countries and nonoperating income such as interest and dividends.

All business receipts are broken down in the following detail:

Total construction receipts—Includes all receipts during 1982 for construction work performed by general contractors, special trades contractors or subcontractors, and for land development and improvement work. Included are receipts for maintenance and repair construction work, as well as for new construction and additions and alterations. Also included is the value of any construction work done by the reporting establishments for themselves.

Builders were instructed to include in this item their 1982 receipts from the sale of buildings and other structures built for sale, excluding from these receipts the value of the land (see ''land receipts'' below) but including the value of any improvements an establishment made to the land. Builders who traded a new home or other building for an existing one were to include the estimated value of the trade-in.

Also included in construction receipts were fees received as sponsors of joint ventures and fees received as agents for owners (for construction work).

Excluded were receipts for separately definable architectural and engineering work done by the reporting establishment for others and receipts from the rental of equipment to others (see ''other business receipts' below).

Establishments engaged in the sale and installation of such construction components as plumbing, heating, and central air conditioning supplies and equipment; lumber and building materials; paint, glass, and wallpaper; and electrical and wiring supplies for construction purposes were instructed to include as construction receipts both the receipts for the installation and the receipts for the value (selling price) of the items installed. (Receipts for the selling price of items sold but not installed were to be included in "other business receipts.")

Receipts for work subcontracted in from others—Covers receipts during 1982 for work done by reporting establishments for other construction contractors or builders. Establishments were asked to report the approximate percent of total construction receipts accounted for by such work, and the percentages reported were applied to the reported construction receipts to develop a value for this item.

Land receipts—Includes receipts from the sale of land, whether held for sale or sold in connection with the sale of houses and other structures. It excludes the value of any improvements made to the land prior to the sale. (That value was to be included in construction receipts.)

Other business receipts—Includes business receipts not reported as construction receipts or land receipts. The item includes business receipts from retail and wholesale trade, rental of equipment, manufacturing, transportation, legal service, insurance, finance, rental of property and other real estate operations, and other nonconstruction activities. Receipts for separately definable architectural and engineering work for others are also included here.

Net construction receipts — Derived for each establishment by subtracting the payments made for construction work subcontracted to others from the total construction receipts. (For a further explanation, see "Duplication of Receipts" section in the Introduction.)

Value added—Derived for each establishment, value added is equal to all business receipts, less payments for construction work subcontracted to others and payments for materials, components, supplies, and fuels. For SIC 6552 and SIC 1531, for which land receipts are significant, value added is modified to be equal to all business receipts less land receipts; payments for construction work subcontracted to others; and payments for materials, components, supplies, and fuels. (For a further explanation, see "Duplication of Receipts" section in the Introduction.)

Selected payments—Represents the total of payments for materials, components, and supplies; payments for construction work subcontracted to others; and payments for selected power, fuels, and lubricants. Capital expenditures and rental payments for machinery, equipment, and structures are shown elsewhere.

Payments for materials, components, and supplies include:

- total payments made by the reporting establishments during 1982 for the purchase of all materials, components, and supplies, except fuels, used for construction. (Supplies include expendable tools charged to current accounts.)
- freight and other direct charges incurred by the reporting establishment in acquiring the materials, components, and supplies are also included, as are the value of materials, components, and supplies obtained from other establishments of the respondent's company. Payments represent the amount paid after discounts.
- payments for materials, components, and supplies used by the reporting establishments in the construction of new plants or equipment for themselves, which are chargeable to their fixed assets accounts, are included in this item as are payments for materials bought and resold to others.
- payments made for direct purchases of materials, components, and supplies even though the purchases were subsequently provided to subcontractors for their use.

Payments for materials, components, and supplies include only payments for physical goods and represent the amount paid after discounts.

Excluded from this item are:

- services such as advertising, telephone, telegraph and cable, insurance, developmental and research services of engineering, management, marketing, and other professional consultants, unless their costs are included in the prices paid for materials.
- overhead items such as depreciation charges against plant and equipment, rent and rental allowances, interest payments, royalties, patent fees, payments for land, rental of construction machinery or equipment, and construction work let out to other construction contractors.
- materials furnished to contractors by the owners of projects.

Payments for construction work subcontracted to others include:

- all payments made during 1982 for construction work subcontracted out to other construction contractors.
 General contractors were instructed to include payments to subcontractors. Builders were instructed to include payments made to general contractors and also payments made directly to subcontractors.
- special trade contractors were instructed to include payments made to other subcontractors. The payments made by the reporting establishment for its purchases of materials, components, and supplies are not included here, even if they were provided to a subcontractor for his use. Such purchases are reported under a separate category, "payments for materials, components, and supplies." However, if payments to subcontractors covered materials purchased directly by the subcontractors, then the total of such payments (including material charges) should have been reported in this item.

Excluded from this item are:

 payments made for the rental of construction machinery or equipment.

Payments for selected power, fuels, and lubricants include:

- payments made for fuels, lubricants, and electric energy purchased during the year from other companies, or received from other establishments of the parent company.
- payments made for natural and manufactured gas, fuel oil, coal and coke products, etc.

Dollar amounts include freight and other direct charges.

Storage capacity for fuels—Data for storage capacity for fuels were collected from heavy construction contractors, other than building construction contractors. Data are published in the detailed statistics tables for the heavy construction industries, i.e., SIC 1611, SIC 1622, SIC 1623, and SIC 1629.

Rental payments for machinery, equipment, and structures—Includes all payments made during 1982 for renting or leasing construction machinery and equipment, transportation equipment, production equipment, office equipment, furniture and fixtures, scaffolding, office space, and buildings. It excludes payments for the rental of land. It also excludes payments made under agreements which, in effect, are conditional sales contracts and which, as a result, are capitalized. Such payments are included in "capital expenditures." It also excludes payments made under agreements which, in effect, are true subcontract construction arrangements; such payments are included in payments for "construction work subcontracted to others."

Selected purchased services — Includes all payments made during 1982 for communication services purchased from other companies or from other establishments of the parent company. It also includes the cost of all repairs made to structures and equipment by outside firms, or from other establishments of the parent companies. It includes only the cost of that repair necessary to maintain property and equipment. It excludes the cost of improvements that increases the value of property, or the cost of adapting it for another use.

Fixed assets and depreciation—Refers to the value of all fixed tangible assets such as buildings and other structures (offices, shops, etc.); stationary machinery (generators, shop equipment, etc.); mobile machinery (tractors, trucks, etc.); and other equipment (office furniture and fixtures, etc.). Not included are such items as current assets, depletable assets, intangible assets, and nondepreciable assets.

Data on fixed assets and depreciation were collected separately for: (1) structures, additions, and related facilities; (2) machinery and equipment; and (3) the total of both.

Respondents were asked to report the gross book valueacquisition cost (original cost or other basis) at the beginning and at the end of 1982. They were also asked to report capitalized expenditures, depreciation charges, and the gross value of assets sold, retired, scrapped, destroyed, etc., during 1982.

Capital expenditures — Refers to all costs actually incurred during 1982 which were or would be chargeable to the fixed assets accounts of the reporting establishments and which were of the type for which depreciation accounts are ordinarily maintained. These expenditures cover the acquisition, the construction, and the major alteration of the reporting establishment's own buildings and other structures, whether purchased, constructed under contract, or constructed by the reporting establishment's own forces; and the acquisition of machinery and equipment. Included are payments made under agreements which, in effect, are conditional sales contracts and which, as a result, are capitalized.

Respondents were instructed not to include any expenditures actually made prior to, or after 1982. For example, if they began construction of a building for an establishment's own use before 1982 and did not complete it until after 1982, they were to report only those costs actually incurred during 1982.

If capital expenditures were not recorded directly at the establishment level but handled centrally at the company or division level, respondents were requested to report appropriate estimates for the individual establishments.

- New structures and related facilities—Includes the
 total expenditures during 1982 for new buildings and
 structures, major additions and alterations to
 buildings and structures, and other facilities for the
 reporting establishment's use (such as roads, docks,
 tracks, parking lots, and fences). It excludes expenditures for land.
- New machinery and equipment—Includes expenditures for new machinery and new equipment. This item also includes capitalized repairs and improvements to used machinery and equipment.
- New automobiles and trucks intended primarily for highway use—Includes expenditures for new automobiles and trucks and capitalized repairs and improvements to used automobiles and trucks.
- Used structures and related facilities—Covers expenditures for used structures and related facilities acquired from others.
- Used machinery and equipment—Includes expenditures for used machinery and equipment acquired from others, including automobiles and trucks.
 Capitalized repairs and improvements to such equipment are reported as new machinery and equipment.

Value of inventories—Includes all of the materials and supplies that are owned and located within the United States. Excludes materials which are owned by others, but held by the reporting establishment.

Inventories of multiestablishment companies were instructed to be reported by the establishment that is responsible for the inventories even if these inventories were held at a separate location.

Establishments building structures on their own land for sale (operative builders) were instructed to include the value of materials on hand at the end of the year but not to include the structures not yet sold or under construction.

Land subdividers and developers were instructed to include the value of materials on hand at the end of the year, but not include land not yet sold or under construction.

Ownership of construction projects—This item shows the distribution of construction receipts by ownership of the project—Government owned or privately owned. This classification relates to the ownership of the projects or work undertaken and not to the financing. Government owned projects cover those owned by the Federal, Commonwealth, or local governments including public authorities and special districts.

Types of construction—This item provides data by the types of buildings, structures, or other facilities being constructed or worked on by construction establishments in 1982. Respondents were instructed that each building, structure, or other facility should be classified in terms of its function. For example, a restaurant building was to be classified in the restaurant category whether it was designed as a commercial restaurant building or an auxiliary unit of an educational institution. However, complex projects consisting of two or more types of buildings, structures, or other facilities are difficult to classify because sufficient information is seldom available. Therefore, respondents were told to classify complex projects by the major function of the total complex.

In addition, heavy construction contractors and special trade contractors were requested to report the percentage of construction receipts derived from new construction work, including additions and alterations, and from maintenance and repair work for each of these types. General building contractors were requested to report the percentage of construction receipts derived from new construction work, from additions and alterations, and from maintenance and repair work for each of these types. See the definition of "Construction" for the meanings of new construction, additions and alterations, and maintenance and repair.

Building construction:

- Single-family houses, detached—Includes all residential buildings constructed for one family use.
- Single-family houses, attached (includes townhouses) — Includes all residential buildings with two or more living quarters side by side, completely independent of one another, and separated by an unbroken party or lot line wall from ground to roof.
- Apartment buildings with two or more apartments— Includes high-rise, low-rise, or any structures other than containing two or more housing units.
- Other residential buildings—Includes hotels, motels, dormitories, and other nonhousekeeping residential structures.
- Bank buildings and other financial institutions— Includes all buildings which are used primarily to house banks or other financial institutions.
- Warehouses—Includes commercial warehouses, cold storage plants, grain elevators, miniwarehouses, and other storage buildings.
- Farm buildings, nonresidential—Includes nonresidential farm buildings such as barns, poultry houses, implement sheds, and farm silos.
- Industrial buildings—Includes all industrial buildings and plants which are used to house production and assembly activities. Note that heavy industrial facilities such as blast furnaces, petroleum refineries, chemical complexes, etc., are NOT included in this category, but are shown under nonbuilding construction.
- Office buildings—Includes all buildings which are used primarily for office space or for government administrative offices.
- Other commercial buildings such as stores, restaurants, and automobile service stations— Includes all buildings which are intended for use primarily in the wholesale, retail, and service trades. For example, complete shopping centers, department stores, drug stores, restaurants, public garages, and auto service stations.
- Religious buildings—Includes all buildings which are intended for religious services or functions, such as churches, synagogues, convents, monasteries, and seminaries.

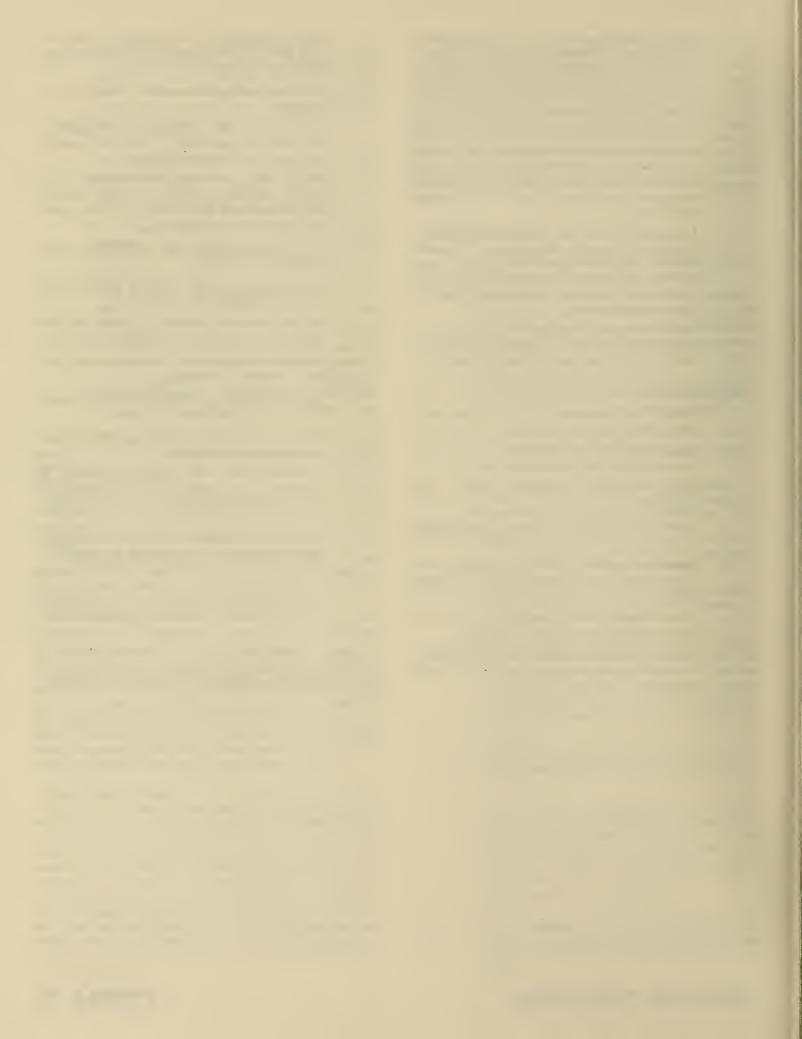
- Educational buildings Includes all buildings which
 are used directly in administrative and instructional
 activities, such as colleges, universities, elementary
 and secondary schools, correspondence, commercial, and trade schools. Libraries, museums and art
 galleries, as well as laboratories which are not a part
 of a manufacturing establishment, are also included.
- Hospitals and institutional buildings—Includes all buildings which are intended to provide hospital and institutional care, such as clinics, infirmaries, sanitariums, nursing homes, homes for the aged, and orphanages.
- Amusement, social, and recreational buildings— Includes buildings which are used primarily for entertainment, social, and recreational activities, such as sports arenas, theaters, music halls, golf and country club buildings, skating rinks, bowling alleys, and indoor swimming pools.
- Other nonresidential buildings—Includes buildings which are not classified elsewhere, such as fire stations, bus and air passenger terminals, hangars, etc.

Nonbuilding construction:

- Outdoor swimming pools—Includes wading pools and reflecting pools.
- Elevated highways—Includes roads, highways, and causeways built on structural supports.
- Bridges—Includes viaducts, trestles, and overpasses.
- Tunnels Includes highway, pedestrian, and railway tunnels, etc.
- Railroad construction—Includes the construction of railroad beds, tracks, freight yards, and signal towers.
- Subway construction—Includes urban mass transit subway systems above or below ground.
- Dam and reservoir construction—Includes hydroelectric, water supply, and flood control dams and reservoirs.

- Marine construction—Includes dredging, underwater rock removal, breakwaters, navigational channels, jetties, and locks.
- Harbor and port facilities Includes docks, piers, and wharves.
- Conservation and development construction— Includes land reclamation, irrigation projects, drainage canals, dikes, and levees.
- Power and communication transmission lines, towers, and related facilities—Includes telephone and telegraph lines, television and radio towers, electric light and power facilities.
- Power plants, except nuclear—Includes electric and steam generating plants.
- Power plants, nuclear—Includes atomic energy plants and nuclear reactors.
- Sewers, sewerlines, and related facilities—Includes sanitary and storm sewers and related facilities.
- Sewage treatment plants—Includes sewage treatment and waste disposal plants.
- Water mains and related facilities—Includes water supply systems and related facilities.
- Water treatment plants—Includes water filtration and water softening plants.
- Pipeline construction other than sewer or waterlines—Includes pipelines for the transmission of gas, petroleum products, and liquefied gases.
- Blast furnaces, petroleum refineries, chemical complexes, etc.—Includes coke ovens, and mining appurtenances such as tipples and washeries.
- Other nonbuilding construction—Includes all types of nonbuilding construction, not included elsewhere.

Location of construction work—This item includes data for each State in which respondents engaged in construction work and the extent (percent of construction receipts) of that work.



APPENDIX B. Standard Industrial Classification Titles for Industry Groups and Industries

SIC code	Industry titles	SIC code	Industry titles
15	BUILDING CONSTRUCTION - GENERAL	17	CONSTRUCTION - SPECIAL TRADE
	CONTRACTORS AND OPERATIVE BUILDERS		CONTRACTORS - Con.
		173	Electrical Work Special Trade Contractors
152 1521	General Building Contractors — Residential Buildings	1731	Electrical Work Special Trade Contractors
1521	General Contractors—Single-Family Houses General Contractors—Residential Buildings,	174	Masonry, Stonework, Tile Setting, and Plastering Special Trade Contractors
	Other Than Single-Family Houses	1741	Masonry, Stone Setting, and Other Stonework
153	Operative Builders	1740	Special Trade Contractors
1531	Operative Builders	1742	Plastering, Drywall, Acoustical and Insulation Work Special Trade Contractors
154	General Building Contractors - Nonresidential	1743	Terrazzo, Tile, Marble, and Mosaic Work Special
1541	Buildings General Contractors—Industrial Buildings and		Trade Contractors
	Warehouses	175	Corportoring and Flooring Special Trade Contractors
1542	General Contractors—Nonresidential Buildings,	1751	Carpentering and Flooring Special Trade Contractors Carpentering Special Trade Contractors
	Other Than Industrial Buildings and Warehouses	1752	Floor Laying and Other Floorwork Special Trade
16	CONSTRUCTION OTHER THAN BUILDING		Contractors, N.E.C.
	CONTRUCTION-GENERAL CONTRACTORS	176	Roofing and Sheet Metal Work Special Trade
161	Highway and Street Construction, Except Elevated	1,0	Contractors
	Highways	1761	Roofing and Sheet Metal Work Special Trade
1611	Highway and Street Construction Contractors		Contractors
162	Heavy Construction, Except Highway and Street	177	Concrete Work Special Trade Contractors
	Construction	1771	Concrete Work Special Trade Contractors
1622	Bridge, Tunnel, and Elevated Highway Construc-	178	Water Well Drilling Special Trade Contractors
1623	tion Contractors Water, Sewer, Pipe Line, Communication and	1781	Water Well Drilling Special Trade Contractors
.020	Power Line Construction Contractors	179	Miscellaneous Special Trade Contractors
1629	Heavy Construction Contractors, N.E.C.	1791	Structural Steel Erection Special Trade Contractors
17	CONSTRUCTION SPECIAL TRADE	1793	Glass and Glazing Work Special Trade Contractors
17	CONTRACTORS CONTRACTORS	1794	Excavating and Foundation Work Special Trade
		1795	Contractors Wrecking and Demolition Work Special Trade
171	Plumbing, Heating (Except Electric), and Air Con-	1733	Contractors
1711	ditioning Special Trade Contractors Plumbing, Heating (Except Electric), and Air Con-	1796	Installation or Erection of Building Equipment
	ditioning Special Trade Contractors	1700	Special Trade Contractors, N.E.C.
172	Painting, Paper Hanging, and Decorating Special	1799	Special Trade Contractors, N.E.C.
	Trade Contractors		
1721	Painting, Paper Hanging, and Decorating Special	6552	SUBDIVIDERS AND DEVELOPERS, EXCEPT
	Trade Contractors		CEMETERIES

APPENDIX C. Geographic Divisions and States

NEW ENGLAND STATES

Connecticut

Maine

Massachusetts

New Hampshire

Rhode Island

Vermont

MIDDLE ATLANTIC STATES

New Jersey

New York

Pennsylvania

EAST NORTH CENTRAL STATES

Illinois

Indiana

Michigan

Ohio

Wisconsin

WEST NORTH CENTRAL STATES

lowa

Kansas

Minnesota

Missouri

Nebraska

North Dakota

South Dakota

SOUTH ATLANTIC STATES

Delaware

District of Columbia

Florida

Georgia

Maryland

SOUTH ATLANTIC STATES-Con.

North Carolina

South Carolina

Virginia

West Virginia

EAST SOUTH CENTRAL STATES

Alabama

Kentucky

Mississippi

Tennessee

WEST SOUTH CENTRAL STATES

Arkansas

Louisiana

Oklahoma

Texas

MOUNTAIN STATES

Arizona

Colorado

Idaho

Montana

Nevada

New Mexico

Utah

Wyoming

PACIFIC STATES

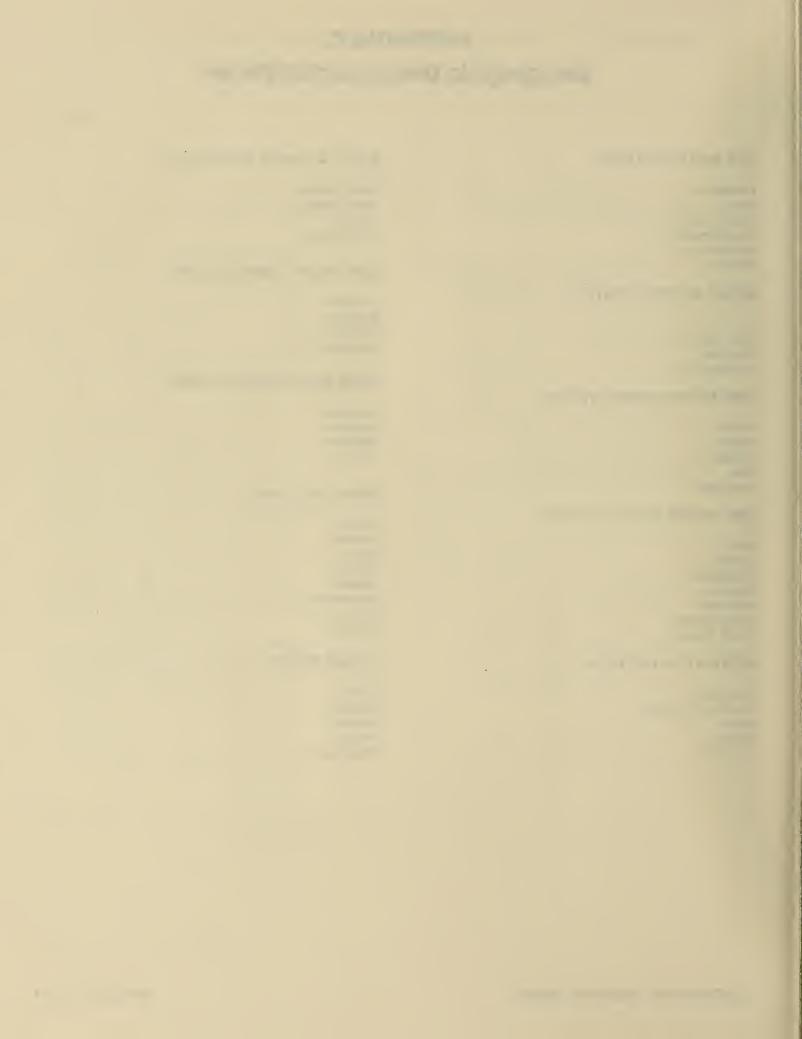
Alaska

California

Hawaii

Oregon

Washington



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Preliminary data from the 1982 census have been issued in 27 industry reports and 1 summary report. These reports are superseded by more detailed final reports.

Final Reports

Final detailed statistics are issued in separate paperbound reports.

Industry series - 28 reports (CC82-I-1 to -28)

Industry series — 27 reports (CC82-I-1 to -27). These reports present data for establishments with payroll and are published for each of the 27 industries included in the census. Each industry report presents 1982 data by State and for the United States on number of construction establishments; receipts; employment; hours worked; payrolls; payments to subcontractors; payments for materials, components, and supplies; payments for power and fuels; payments for selected purchased services; payments for the rental of machinery, equipment, and structures; value added; capital expenditures during the year; and depreciable assets. Limited data for 1977, 1972, and 1967 are also shown. In addition, more detailed data are shown at the U.S. level on construction receipts by type of structure (single-family houses, streets, roads, etc.). Selected data also are provided for establishments classified by their employment size and receipts size.

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industry series, except here they are organized by State rather than by industry. Similar data also are presented for selected SMSA's. Data are provided for establishments classified by their employment size and receipts size. Data for establishments with no payroll as well as comparative 1977, 1972, and 1967 figures, on a limited basis, also are shown.

U.S. Summary by State (CC82-A-10). This report summarizes the data, as presented in the nine individual geographic division reports, for establishments with and without payroll.

Special series - 1 report (CC82-SP-1)

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